

*Intended and unintended consequences of a
prohibition on Medigap first-dollar benefits*

October 2011

Cory Capps, PhD*
David Dranove, PhD**

* Partner, Bates White Economic Consulting, Washington, DC

** Walter McNerney Professor of Health Industry Management, Kellogg School of Management, Northwestern University, Evanston, IL

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I. Executive summary

When introduced in 1965, Medicare had substantial cost-sharing requirements that could leave the beneficiary exposed to high out-of-pocket costs. A market for private supplemental insurance—that includes but is not limited to Medicare Supplement (Medigap) plans—emerged soon thereafter. Today, most Medicare beneficiaries purchase some form of supplemental insurance that covers much or all of the cost-sharing required by Medicare, or they pursue other comprehensive coverage options, such as Medicare Advantage.

Concerned about the solvency of Medicare in the 21st century, some policymakers are now suggesting that Medigap insurance should be prohibited from providing first-dollar coverage benefits. Economic research on health insurance and moral hazard does provide some support for this approach as a tool to reduce healthcare expenditures. Nevertheless, as we explain below, an across-the-board ban on first-dollar coverage plans would be overly broad and overly blunt and might lead to unintended adverse consequences, particularly for vulnerable subpopulations. The empirical basis for using higher cost-sharing to reduce expenditures lies in the famous RAND National Health Insurance Experiment (“RAND HIE”) from the 1970s, which examined the effects of cost-sharing on healthcare expenditures and outcomes. The conclusion of the RAND HIE was that, for *most but not all* populations, patients who receive care with zero cost-sharing had higher spending but, on average, similar health outcomes. However, the study reached a different conclusion for vulnerable subpopulations, defined as those with higher rates of chronic conditions and lower incomes—these groups had poorer outcomes when faced with higher cost-sharing. Many Medicare beneficiaries would be considered vulnerable using the RAND criteria.¹

America’s Health Insurance Plans (AHIP) has asked us to review subsequent research on the effects of higher cost-sharing on vulnerable subpopulations to determine whether the basic findings of the RAND HIE still apply and to evaluate the likely effects of a ban on first-dollar coverage Medigap plans.

We find that, not surprisingly, there are a number of important distinctions between the healthcare system of the 1970s and that of today. The RAND HIE was conducted in an environment of indemnity health insurance, meaning that reimbursement was relatively generous and there were few other controls on utilization. In contrast, the current proposals would be coupled with other cost containment efforts. Interactions between increased cost-sharing and other policy changes are not well studied and might result in adverse unanticipated consequences. Moreover, the RAND study only examined the effects of lower

¹ For example, the median income of a Medicare beneficiary was just \$22,000 in 2010. See <http://www.kff.org/medicare/upload/8172.pdf>.

cost-sharing on the under-65 population, but the proposed ban would affect the Medicare-eligible population, which—as noted above—generally has lower incomes and higher rates of chronic conditions.

We conclude that an across-the-board prohibition on first-dollar Medigap might achieve some aggregate cost savings, but those savings would likely be less than anticipated, because spending would likely increase for some Medigap enrollees. One key effect of increased cost-sharing is to reduce *both* medically necessary and medically unnecessary care. Cost savings from reducing *medically necessary* care are ephemeral—forgoing necessary services today results in higher acuity and more expensive services tomorrow and so net savings are reduced. In the case of vulnerable subpopulations, such as the chronically ill, dual Medicare/Medicaid eligible enrollees, and low-income seniors, research shows that the offsets can exceed the savings, meaning that, for these groups, higher cost-sharing can cause aggregate spending to increase even as health outcomes worsen.

Moreover, to the extent that a ban on first-dollar Medigap benefits is implemented at the same time as other new cost containment efforts, the scope for realizing aggregate savings from the ban would again be reduced. We conclude that, particularly in comparison to more refined or targeted approaches, an across-the-board ban on first-dollar coverage Medigap plans is an overly blunt tool for lowering healthcare expenditures and invites adverse, unintended consequences.

II. Rethinking cost-sharing in Medicare

Since its introduction in 1965, Medicare has grown to become one of the largest and most popular government programs. As a result of Medicare expenditures alone, the federal government is the largest single purchaser of health care in the United States: federal spending on Medicare, which exceeded \$500 billion in 2010, accounts for about 20% of all healthcare expenditures.² Factoring in all health spending—including spending by Medicaid, private insurance, and out-of-pocket payments—per capita spending on the elderly is more than three times per capita spending on the under-65 adult population.³ As a result of rising healthcare costs and an aging population, Medicare enrollment and costs are projected to continue growing and policymakers are looking for ways to curb spending.

² “Medicare Spending and Financing Fact Sheet,” Kaiser Family Foundation, August 2010, <http://www.kff.org/medicare/upload/7305-05.pdf>.

³ “NHE Fact Sheet,” Centers for Medicare & Medicaid Services, https://www.cms.gov/NationalHealthExpendData/25_NHE_Fact_Sheet.asp.

In its June 2011 *Report to the Congress*, the Medicare Payment Advisory Commission (MedPAC) suggested rethinking cost-sharing provisions in Medicare. MedPAC’s stated aim is “to give beneficiaries better protection against high (out-of-pocket) spending and to promote incentives for them to weigh their use of discretionary care, without discouraging needed care.”⁴ MedPAC seems to be simultaneously (1) pointing towards insurance that emphasizes last-dollar coverage with substantial first-dollar cost-sharing (i.e., plans that cover a high proportion of costs for enrollees with greater medical expenditures and a low proportion of costs for enrollees with lesser expenditures) as a way to reduce Medicare expenditures; and (2) recognizing that increased cost-sharing might pose a risk to the provision of “needed care.”

Among other recommendations to incentivize enrollee and provider behaviors, MedPAC contemplates restrictions on Medigap carriers’ ability to provide first-dollar coverage. For example, one proposal would bar payment by Medigap plans of the first \$550 of beneficiary cost-sharing and limit coverage to 50% of the next \$4,950 in cost-sharing, with all further cost-sharing covered by the Medigap policy.⁵ President Obama’s deficit reduction panel adopted similar recommendations—namely, the panel recommended that the Medicare fee-for-service program adopt a combined \$550 annual deductible coupled with 20% coinsurance above this amount and a \$7,500 annual out-of-pocket maximum, while simultaneously prohibiting Medigap plans from covering the deductible and severely restricting coverage of the Medicare coinsurance amounts.⁶ If these or similar changes are approved, millions of seniors would be forced to either spend substantially more out-of-pocket for their medical care, reduce the amount of care they receive, or some combination of both.

III. Background on cost-sharing and Medigap coverage

III.A. Conceptual framework

Health insurance provides protection against financial risk, which is economically efficient because most people are risk averse. But this protection also carries a cost in that individuals purchasing medical services might not consider the full cost of care and thus might consume more services than if they had to pay 100% of the bill. Economists call the resulting overconsumption “moral hazard.” There is an inherent tension between risk aversion and moral hazard: from a pure risk protection standpoint, optimal insurance would cover all of

⁴ “Report to the Congress: Medicare and the Health Care Delivery System,” at p. xiii, Medicare Payment Advisory Commission, 2011, http://www.medpac.gov/documents/Jun11_EntireReport.pdf.

⁵ *Id.* at ch. 3.

⁶ “NASUAD’s Analysis of The National Commission on Fiscal Responsibility and Reform,” National Association of States United for Again and Disabilities, www.nasuad.org/newsroom/archive/2010/Oct_Dec/fiscal_commission.html.

the cost of care; from a pure moral hazard standpoint, consumers would not have any insurance.⁷

Additionally, some argue that patients do not always make appropriate medical decisions and sometimes purchase too few medical services (e.g., certain preventive services), even when those services are covered by insurance.⁸ Under this theory, zero cost-sharing for some types of care will not only reduce risk but also result in better outcomes and/or reduced total expenditures. (In section IV, we review the research literature on the effects of cost-sharing on utilization, prevention, outcomes, and spending.)

The offerings of private health insurers attempt to balance concerns about risk aversion, moral hazard, and patient decision-making. However, the impact of these factors is not uniform, so the development of plan design is often a complex process, and insurers might set different rules for different services and offer different plans to different groups. For example, the relative importance of these factors may be different for inpatient care than for physician services. Similarly, the relative importance may be different for lower income individuals, patients with chronic diseases, or other vulnerable populations.⁹

III.B. Historical background

Introduced in 1965, Medicare was not designed to strike this optimal balance. Resolution 1, which introduced the Medicare legislation, “left a substantial place for private insurance for nonbudgetable health costs.”¹⁰ As originally proposed, Medicare would cover only inpatient

⁷ It is theoretically possible to design insurance that covers some of the cost of care yet still exhibits no moral hazard and exposes consumers to 100% of the marginal price. This is possible if demand for a service is perfectly inelastic, but consumers can shop around among competing providers. The insurance would cover the price of the least expensive provider. In this case, the amount of service consumed is constant (because demand is inelastic) but the consumer who chooses someone other than the least expensive provider pays the full price differential. Concerns that moral hazard plays a large role in driving healthcare expenditures necessarily presume that the demand for healthcare services is elastic rather than perfectly inelastic.

⁸ Patients may fail to make appropriate decisions either because they lack the requisite information or because, as a consequence of their insurance coverage, they do not bear the full costs of making inappropriate medical decisions.

⁹ The unique role of Medigap insurance and the characteristics of the over-65 population also imply that the design of Medigap plans should not necessarily mirror the design of commercial insurance plans. For both groups, if cost-sharing obligations with respect to certain services are increased, the utilization of those services can be expected to fall by some amount. In commercial insurance, the reduction in utilization allows the insurer or self-funded entity to reduce premiums to consumers or employees. The reduced premiums make some commercial plans with higher cost-sharing the best choice for particular employers, employees, and consumers, with the benefit of lower premiums being of more value to them than the increased cost-sharing amounts. (See, e.g., Kaiser/HRET, *Employer Health Benefits 2010 Annual Survey*, Ex. 13.2, Ex. 7.7, available at <http://ehbs.kff.org/pdf/2010/8085.pdf>). For Medigap, only a portion of any such cost savings accrue to the Medigap plans and their enrollees, with the remainder accruing to the Medicare program. As a result, the incentive for enrollees to choose higher cost-sharing Medigap plans is reduced. Banning first-dollar Medigap coverage options would be one way to force enrollees to choose plans with higher cost-sharing. However, as we explain herein, the resulting savings would be offset, because higher cost-sharing will reduce some types of medically appropriate care. The research that we summarize in this paper indicates that the offset is generally below 100% but can exceed 100% for low income and chronically ill seniors.

¹⁰ Theodore Marmor, *The Politics of Medicare* (Chicago: Adline, 1973).

services; this is now called Part A of Medicare. The program also allows beneficiaries to purchase, at modest cost, additional Part B coverage for physician and outpatient services. Part B premiums, currently set at \$115.40 per month for most of the eligible population (premiums are higher for higher income eligibles) are deducted from Social Security payments.¹¹ Upon becoming eligible, seniors who do not opt-out are automatically enrolled in both Parts A and B.

Both Parts A and B include cost-sharing provisions modeled after the federal employees health insurance plan. This includes a substantial deductible for hospital care and a 20% coinsurance charge for physician visits. However, as researchers have noted, “the federal employee health insurance program was designed to cover acute illness; little consideration was given to the differences between young and old or chronic and acute illness. Cost-sharing provisions that were appropriate and not burdensome for a working-age population were inappropriate for the elderly.”¹²

Medicare beneficiaries who are enrolled in the Medicare fee-for-service program and wish to reduce their financial exposure generally have three options to supplement their coverage:

1. *Medicaid* is available for very low-income seniors, who are referred to as “dual eligibles.” As of 2008, about 15% of Medicare beneficiaries were also covered by Medicaid.¹³ Cost-sharing provisions under Medicaid vary by state but are typically low. Thus, most dual eligibles face negligible cost-sharing, though in comparison to their income, even a small degree of cost-sharing could affect their healthcare consumption.
2. *Employer-sponsored retiree benefits* are the largest source of supplemental coverage. In 2008, 33% of all Medicare beneficiaries had such coverage.¹⁴
3. *Private Medicare supplement coverage*, also known as Medigap. Medigap insurance policies were offered almost immediately after the launch of Medicare in 1966. In 1990, Congress mandated that the National Association of Insurance Commissioners (NAIC) create 10 model Medigap policies and limited insurers to selling those 10 policies, several of which have subsequently been dropped or modified. As summarized in Appendix A, the standardized policies vary according to the breadth

¹¹ <http://ssa.gov/pubs/10043.html>; <http://www.cahealthadvocates.org/basics/partB.html>.

¹² Adam Atherly, “Supplemental Insurance: Medicare’s Accidental Stepchild,” *Medical Care Research and Review* 58, no. 2 (2001): 131–61. See also, Mark Schlesinger and Terrie Wetle, “Medicare’s coverage of health services,” in *Renewing the Promise: Medicare and its Reform*, eds. David Blumenthal, Mark Schlesinger, and Pamela Brown Drumheller, 58–89. New York: Oxford University Press, 1988.

¹³ <http://facts.kff.org/chart.aspx?cb=58&sctn=167&ch=1774>.

¹⁴ *Id.*

of coverage and levels of cost-sharing.¹⁵ In 2008, 17% of Medicare beneficiaries had Medigap coverage.¹⁶

Medicare beneficiaries may also opt out of the Medicare fee-for-service program and into Medicare Advantage (MA) managed care plans, under Part C of the program. MA plans provide comprehensive coverage (e.g., hospital, physician, and other medical services), usually have lower cost-sharing requirements than Medicare fee-for-service, and may also feature expanded benefits. Currently, nearly 26% of Medicare beneficiaries are in MA plans.¹⁷ Thus, seniors generally choose between either an MA plan or a combination of Part A and Part B coverage under the Medicare fee-for-service program, coupled with Medigap or other supplemental coverage to cover Medicare's substantial out-of-pocket exposure.

III.C. Medigap plan varieties and benefits

A study of enrollment in Medigap plans available as of December 2010 showed that Plan F accounted for nearly half of all Medigap coverage.¹⁸ This plan covers the Medicare Part A and Part B deductibles and coinsurance and also covers, for visits to providers who have not agreed to accept assignment, the difference between a provider's charges and the Medicare "allowable charge."¹⁹ The vast majority of beneficiaries who purchased Medigap coverage chose plans that covered all inpatient coinsurance amounts and some or all Part B coinsurance amounts. See Appendix A for a comparison of the current standardized Medigap benefit designs, with the accompanying cost-sharing features highlighted.

¹⁵ In 2010, Medicare eliminated plans E, H, I, and J as they became duplicative or unnecessary in light of the other changes to the Medicare program and Medigap benefits. These four Medigap Plans accounted for 15% of all in-force coverage as of December 2010. <http://www.ahipresearch.org/pdfs/Medigap2011.pdf>.

¹⁶ In 2009, there were 45.5 million Medicare beneficiaries and approximately 9.4 million enrollees in Medigap plans. See <http://www.statehealthfacts.org/comparemaptable.jsp?yr=92&typ=1&ind=290&cat=6&sub=74> and <http://www.ahipresearch.org/pdfs/Medigap2009.pdf>.

¹⁷ <http://www.statehealthfacts.org/comparecat.jsp?cat=6&rgn=6&rgn=1>.

¹⁸ America's Health Insurance Plans, "Trends in Medigap Coverage and Enrollment, 2010–2011," July 2011, available at <http://www.ahipresearch.org/pdfs/Medigap2011.pdf>.

¹⁹ Generally speaking, providers who do not accept assignment can charge more than the Medicare physician fee schedule (PFS). However, they are only allowed to collect (at most) 15% more than the Medicare allowable amount from Medicare enrollees. This additional 15% is called the "excess charge," and it applies only to certain services and does not apply to durable medical equipment, prosthetics, orthotics, and supplies (DMEPOS). <http://www.cahealthadvocates.org/pdf/facts/A-004-CHAFactSheet.pdf>.

IV. Cost-sharing, expenditures, outcomes, and unintended consequences

IV.A. The RAND National Health Insurance Experiment

The famous RAND National Health Insurance Experiment (“RAND HIE”) from the 1970s provides the economic foundation for the literature on the impact of cost-sharing.²⁰ The RAND HIE randomly assigned working-age adults and their families to one of five insurance plans with varying levels of cost-sharing. Four of the plans were indemnity plans with cost-sharing levels that were either 0, 25, 50, or 95%. The fifth plan was a health maintenance organization (HMO).²¹ All plans had annual ceilings on medical expenditures of \$1,000 in 1977 dollars, or about \$10,000 in today’s dollars (based on the Medical CPI).

Key results of the RAND HIE are as follows:

- Based on the set of patients in the various indemnity plans, cost-sharing reduced utilization by as much as 30%. The primary mechanism was that patients in the groups with cost-sharing had fewer physician visits and fewer hospitalizations: however, once the services were initiated, the intensity or cost of care did not fall under increased cost-sharing, and there was no evidence that patients with higher cost-sharing sought out providers with lower prices.
- The greatest “bang for the buck” appears to come from moving individuals from no cost-sharing to 25% coinsurance. The two highest coinsurance rates did not produce proportionally greater spending reductions than the 25% coinsurance rate.
- Spending reductions among the group enrolled in the HMO plan, which offered care with zero cost-sharing but featured utilization management, were comparable to the spending reductions among the indemnity plan enrollees with higher cost-sharing.
- Higher cost-sharing generally reduced care, *both effective and ineffective*, across the board. Even so, there were few observed differences in health outcomes for most participants in the various plans.
- An important exception is that *low income participants with chronic conditions enrolled in plans with positive cost-sharing, including at the 25% coinsurance level, had poorer health outcomes than those enrolled in the 0% cost-sharing plan.*

²⁰ Robert Brook et al., “The Effect of Coinsurance on the Health of Adults,” *RAND Health Insurance Experiment Series*, 1984. See generally, http://www.rand.org/pubs/research_briefs/RB9174/index1.html.

²¹ HMO study participants in the Seattle area were assigned to the Group Health Cooperative of Puget Sound, a staff-model HMO.

The RAND HIE results suggest that, at least in a fee-for-service environment without other mechanisms to control utilization, cost-sharing is likely to lead to reduced health expenditures without adversely affecting outcomes for most demographic groups. However, there are several important distinctions that might limit the direct applicability of the RAND HIE conclusions to current Medicare beneficiaries:

- Medicare beneficiaries did not participate in the RAND HIE study. This population is disproportionately likely to have chronic conditions, raising concerns about the findings regarding poor health outcomes for the chronically ill enrolled in RAND HIE cost-sharing plans. That is, a higher percentage of the Medicare population likely falls into the category that experienced adverse effects on health outcomes from the increased cost-sharing in the RAND HIE study.
- In particular, today, nearly 90% of Medicare beneficiaries have at least one chronic condition, and over 75% of Medicare spending is attributable to individuals with five or more chronic conditions.²² *Thus, any cost savings emanating from increased beneficiary cost-sharing for outpatient care (e.g., through elimination of Medigap first-dollar coverage) would come from the population most vulnerable to poor health outcomes and would likely be offset, at least in part, by increased costs for additional hospitalizations.*²³
- A higher proportion of Medicare beneficiaries are low income (and low wealth), and so the impact of higher cost-sharing may be magnified for this population.²⁴
- The RAND HIE study was set in a reimbursement environment far different from today's Medicare and likely even more different from tomorrow's Medicare. The plans studied under the RAND HIE were traditional indemnity insurance designs and provider reimbursement was calibrated to the relatively generous levels of private indemnity plans. These conditions resulted in substantial moral hazard in the plan with zero cost-sharing. It should have been no surprise that the introduction of cost-sharing reduced utilization.
- Similarly, results about the effects of cost-sharing on expenditures and outcomes may not generalize to plans that feature care management. As Medicare adds more care management features, under the Affordable Care Act (ACA) and otherwise, the RAND

²² Lewin Group, "Savings From the Medicare Drug Benefit for Beneficiaries with Chronic Conditions," January 2006, available at <http://www.lewin.com/content/publications/3610.pdf>; Kimberly Swartz, "Projected Costs of Chronic Disease," available at <http://healthcarecostmonitor.thehastingscenter.org/kimberlyswartz/projected-costs-of-chronic-diseases/>.

²³ See Amitabh Chandra, Jonathan Gruber, and Robin McKnight, "Patient Cost-Sharing and Hospitalization Offsets in the Elderly," *American Economic Review* 100, no. 1 (2010): 193–213. See also Michael E. Chernew and Joseph Newhouse, "What Does the RAND Health Insurance Experiment Tell Us About the Impact of Patient Cost Sharing on Health Outcomes?" *American Journal of Managed Care* 14, no. 7 (2008): 412–4.

²⁴ Nearly 15% of retirees depend on Social Security as their sole source of income. <http://marketplace.publicradio.org/display/web/2010/08/13/mm-some-retirees-living-from-social-security-check-to-social-security-check/>. Social Security payments keep nearly 40% of the 65+ population out of poverty. Paul Van de Water and Arloc Sherman (2010), "Social Security Keeps 20 Million Americans Out of Poverty: A State-by-State Analysis," Washington, DC, Center on Budget and Policy Priorities.

HIE results may become less relevant. In particular, the RAND HIE design varied cost-sharing percentages only for enrollees in indemnity plans. The only HMO plan studied in the RAND HIE covered 100% of the costs of care for its enrollees but achieved spending reductions comparable to those of the three indemnity plans with cost-sharing. In other words, under the RAND HIE, cost-sharing and care management were treated as alternatives and were not studied in combination.

IV.B. Subsequent cost-sharing studies

The RAND HIE is not the only study of the impact of cost-sharing on expenditures and outcomes. Subsequent research has generally found consistent results. In this section, we review in detail a recently published paper by Chandra, Gruber, and McKnight that features a strong empirical design and contains results derived from studying retirees rather than working-age enrollees. We also review in brief a number of additional papers that speak to the effects of cost-sharing on expenditures and outcomes.

IV.B.1. Chandra, Gruber, and McKnight (2010)

A recent study by Chandra, Gruber, and McKnight, published in the *American Economic Review*, examines the effects of a policy change very similar to the one being considered for by Medicare.²⁵ The California Public Employees' Retirement System (CalPERS) provides supplemental health benefits for retired State of California employees. Historically, CalPERS insurance was very generous, with nominal cost-sharing. Beginning in 2001, CalPERS increased copayments for physician office visits from \$0 to \$10 in its HMO plans. Prescription drug copayments were also increased in both HMO and PPO plans. Taking advantage of differences in the timing of when the cost-sharing provisions were introduced, Chandra et al. use a “differences in differences” research design to study the effect of increasing cost-sharing on medical spending.

Chandra et al. find that the increase in cost-sharing resulted in retirees making fewer office visits and using fewer drugs. However, retirees also had more hospital visits and incurred higher hospital expenditures.²⁶ This hospital offset was modest for the average retiree—about 20% of the combined savings on physicians and drugs. However, the offset was (1) *more than 100% of the savings on physicians and drugs for the unhealthiest enrollees*, as measured by the Charlson index and (2) nearly 50% for those with chronic conditions.²⁷ In other

²⁵ Amitabh Chandra, Jonathan Gruber, and Robin McKnight, “Patient Cost-Sharing and Hospitalization Offsets in the Elderly,” *American Economic Review* 100, no. 1 (2010): 193–213.

²⁶ This result is contrary to the finding of the RAND HIE, where both physician visits and hospitalizations fell for the groups with cost-sharing percentages of 25% or higher. This contrast highlights the important point that the effects of cost-sharing can vary depending on the affected population (the RAND HIE studied the working-age population whereas Chandra, Gruber, and McKnight study retirees).

²⁷ The Charlson index measures comorbidities such as cardiovascular disease, diabetes, AIDS, etc.

words, the study found that *for the unhealthiest enrollees, reduced cost-sharing resulted in higher, not lower, overall expenditures.*

Because the study found offsets to the savings in the form of more hospital visits and higher hospital expenditures, it is necessarily the case that the increased cost-sharing also resulted in additional hospital stays and/or increased rates of preventable conditions. However, Chandra et al. do not attempt to measure such nonpecuniary costs to enrollees.

Chandra et al. also describe how the burden of spending changed as a result of the increase in cost-sharing:

- *Physician office visits.* CalPERS and Medicare benefit about equally from reductions in spending on physician office visits.
- *Drug expenditures.* Medicare did not cover drug costs at the time of this study, so CalPERS reaped the entire benefit of lower drug spending.
- *Hospital expenditures.* Medicare bears the majority of the costs of hospital spending and so paid most of the increased, offsetting hospital costs.

Taken together, CalPERS spending fell substantially, and Medicare spending fell by a smaller amount. *For the unhealthiest enrollees, however, Medicare spending increased.* Although there are no outcome data, the cost data suggest that the chronically ill were not as effectively managed following the increase in cost-sharing. This is consistent with the findings of the RAND HIE.

IV.B.2. Other research on the expenditure and outcome effects of cost-sharing

Other studies of cost-sharing focused on quasi-experiments involving changes in cost-sharing for prescription drugs. These studies have validated the cost and quality concerns raised by the Chandra et al. study:

- Goodell and Swartz (2010), in a survey article sponsored by the Robert Wood Johnson Foundation, reviewed the literature on the effects of cost-sharing on the use of services, whether certain population groups are more sensitive to cost-sharing levels, and the effects of cost-sharing on healthcare outcomes and spending. Their three main conclusions were as follows: (1) “Patient cost-sharing is not necessarily an effective mechanism for significantly slowing health care spending;” (2) “Cost-sharing is not well-targeted on low-value services;” and (3) “Caution should be used when increasing cost-sharing for low-income populations or the chronically ill.”²⁸

²⁸ Sarah Goodell and Katherine Swartz, “Cost-sharing: Effects on spending and outcomes,” *RWJF Policy Brief No. 20*, December 2010, available at <http://www.rwjf.org/files/research/121710.policysynthesis.costsharing.brief.pdf>. For a more detailed review of the cost-sharing literature, see Katherine Swartz, “Cost-sharing: Effects on spending and

- Trivedi, Rakowski, and Ahinian (2008) compared patients enrolled in Medicare Advantage plans that increased copayments for ambulatory care to plans that did not. They found that increased copayments for ambulatory care resulted in elderly patients forgoing outpatient care and led to increased use of hospital care. They also reported that the effects of increased ambulatory care copayments were larger for “enrollees living in areas of lower income and education and among enrollees who had hypertension, diabetes, or a history of myocardial infarction.” They concluded that “[r]aising cost sharing for ambulatory care among elderly patients may have adverse health consequences and may increase total spending on health care.”²⁹
- Goldman, Joyce, and Zheng (2007) surveyed 132 studies published between 1985 and 2006 that examine the effects of drug cost-containment measures, including copayments, coinsurance, and formulary tiers. As expected, they conclude that increased cost-sharing does reduce expenditures. However, they also found that for patients with chronic conditions, the reductions in expenditures on pharmaceuticals are offset by increased usage of other medical services. In addition, they reported that increased cost-sharing reduces adherence to treatment regimens, including more frequent discontinuations of treatment.³⁰
- Chernew et al. (2008) found similar results and also noted that the effects of higher drug cost-sharing on adherence are greater for chronically ill patients in low-income areas.³¹

IV.C. Interaction with aspects of the Affordable Care Act

While this paper focuses on proposals to prohibit first-dollar coverage in Medigap, policy changes do not occur in the vacuum. In particular, the effects of the proposed prohibition on Medigap first-dollar coverage would interact with other newly implemented and forthcoming policy changes. Most significantly, perhaps, in this context is that the ACA already includes several other proposals that are aimed, at least in part, at ensuring that appropriate care is given and inappropriate care is not.³² For example, the ACA includes provisions to promote Accountable Care Organizations (ACOs), provisions that will restructure how certain

outcomes,” *RWJF Research Synthesis Report No. 20*, December 2010, available at <http://www.rwjf.org/files/research/121710.policysynthesis.costsharing.rpt.pdf>.

²⁹ Amal N. Trivedi, William Rakowski, and John Z. Ayanian, “Effect of Cost Sharing on Screening Mammography in Medicare Health Plans,” *New England Journal of Medicine* 358 (2008): 375–83.

³⁰ Dana Goldman, Geoffrey Joyce, and Yuhui Zhing, “Prescription Drug Cost Sharing Associations with Medication and Medical Utilization and Spending and Health,” *Journal of the American Medical Association* 298, no. 1 (2004): 61–9. See also, Martin Gaynor, Jian Li, and William B. Vogt, “Substitution, Spending Offsets, and Prescription Drug Benefit Design,” *Forum for Health Economics & Policy* 10, no. 2 4 (2007). Available at <http://www.bepress.com/fhep/10/2/4>.

³¹ Michael E. Chernew et al., “Effects of increased patient cost sharing on socioeconomic disparities in health care,” *Journal of General Internal Medicine* 23, no. 8 (2008): 1,131–6.

³² For example, the preamble to the notice of proposed rulemaking (NPRM) for the Medicare Shared Savings program states that one objective of the program is that “[p]roviders should be accountable for the cost of care, and be rewarded for reducing unnecessary expenditures and be responsible for excess expenditures.” 76 Fed. Reg. 19528, 19531.

providers are paid, and provisions that may facilitate value-based insurance design.³³ Each of these reforms has the purpose, or potential effect, of reducing the delivery of care that is not beneficial to patients—the same purpose that might be served by increasing cost-sharing under Medigap coverage.³⁴

Increasing Medigap cost-sharing while also implementing changes such as reducing provider fee growth and placing financial risk on providers—whether through ACOs, capitation, or some other method—is like using a belt and suspenders: it may be excessive.³⁵ That is, to the extent that any one or two of these measures substantially reduce unnecessary services, the incremental effect of a third measure is more likely to be a reduction in the provision of medically valuable services.

Pauly and Ramsey (1999) present a theoretical analysis of this “belt and suspenders” approach to cost control and show that overall quality can fall below optimal levels if the belt and suspenders are “too tight.”³⁶ In particular, their theory shows that adding cost-sharing can help eliminate unnecessary services, but only if the “service limitation” (i.e., management efforts, such as capitation or utilization review, intended to reduce unnecessary care) is simultaneously *increased*. By raising the service limitation, relatively sick patients can get the care they need, even as cost-sharing deters moral hazard-driven utilization by healthier patients. Thus, in the Pauly and Ramsey model, increasing cost-sharing would be appropriate *if other constraints on utilization are relaxed*. In the case of Medigap plans, however, Medicare is contemplating increased cost-sharing *at the same time* that it is contemplating other cost-containment initiatives. Given the current pressure for controlling costs, it is quite possible that the resulting “suspenders and belt” will be too tight, resulting in unnecessary pain to beneficiaries.

³³ Traditional economic analysis of moral hazard assumes that all individuals are well informed and make rational decisions—that is, insured patients sometimes purchase healthcare services whose value is less than the cost but never forego services when the value exceeds the cost. These are extreme assumptions. If, as is likely, these assumptions are not correct, careful tailoring of cost-sharing to specific services can improve efficiency. The idea of eliminating or tailoring copayments in order to encourage appropriate medical decision-making is known as *value-based health insurance design*. Value-based insurance design requires subtle consideration of how cost-sharing provisions will affect care choices and incentive behavior. A prohibition on first-dollar benefits does not demonstrate this degree of care and subtlety. Michael E. Chernew, Allison Rosen, and A. Mark Fendrick, “Value Based Insurance Design,” *Health Affairs* 26, no. 2 (2007): w195-w203.

³⁴ In addition, an across-the-board ban on Medigap plans that feature zero cost-sharing for some or all services could preclude the emergence of plan designs that incorporate aspects of value-based health insurance design. (Current rules preclude Medigap insurers from introducing value-based design elements on their own; they would need to work with NAIC and CMS to develop a new model plan.)

³⁵ Mark V. Pauly and Scott D. Ramsey, “Would You Like Suspenders to Go with that Belt? An Analysis of Optimal Combinations of Cost Sharing and Managed Care,” *Journal of Health Economics* 18 (1999): 443–58.

³⁶ In other words, for increased cost-sharing to be effective, it has to primarily reduce the utilization of *medically unnecessary* services without significantly reducing the utilization of *medically necessary* services (otherwise, health outcomes will worsen, and a higher proportion, potentially more than 100%, of cost reductions will be offset). If other policy changes reduce the rendering of *medically unnecessary* services, then what remains to potentially be reduced by increased cost-sharing will primarily be services that are *medically necessary*.

Indeed, there are few if any studies that examine the effects of multiple cost containment measures implemented in combination, and the precise ways in which they will interact are difficult to predict. Therefore, unless implemented with a deft touch, excessive reductions in the utilization of medically necessary care that place beneficiaries at risk and increase expenditures are more likely when the effects of the first-dollar coverage ban interact with other measures.

Other prominent health economists have also noted that simplistic increases in cost-sharing can be overly blunt and do not specifically target medically unnecessary care. For example, Baicker & Goldman (2011) offer the following caution:³⁷

Demand-side cost-sharing can play a role in addressing the problems of high and rapidly rising healthcare spending and the prospect of substantial future increases. But increases in demand-side cost-sharing should not be uniform. Even as cost-sharing should rise substantially in many areas, certain health goods and services, and certain populations, should probably face lower demand-side cost-sharing.

Similarly, Chernew & Newhouse (2008) revisit the results of the RAND HIE, and reviewed subsequent studies, in an effort to analyze the impact of patient cost-sharing on health status. Based on that review, they specifically caution against using the RAND study to justify higher across-the-board cost-sharing, explaining as follows:³⁸

First, it is likely, based on the results of the HIE, that the negative effects of higher cost-sharing are most significant for treating chronic disease and certain preventive services. Fewer effective treatments for chronic disease were available in the 1970s; thus, the adverse consequences of cost-sharing may be greater now than they were in the past. Second, over 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.

V. Conclusion

Moral hazard has been implicated as a contributor to Medicare's rising healthcare expenditures, and some policymakers recommend correcting this problem by prohibiting first-dollar benefits under Medigap insurance. The recommendation is based on both theory

³⁷ Katherine Baicker and Dana Goldman, "Patient Cost-Sharing and Healthcare Spending Growth," *Journal of Economic Perspectives* 25, no. 2 (2011): 47–68.

³⁸ Michael E. Chernew and Joseph Newhouse, "What Does the RAND Health Insurance Experiment Tell Us About the Impact of Patient Cost Sharing on Health Outcomes?" *American Journal of Managed Care* 14, no. 7 (2008): 412–4.

(there is an externality that encourages beneficiaries to purchase generous Medigap coverage) and evidence (the RAND HIE and related studies of moral hazard). However, as discussed herein, there are also theoretical and empirical reasons to question whether this is the right medicine for what ails Medicare in today's environment and whether a one-size-fits-all approach to cost-sharing is the best way to deliver the cure for the Medicare population. The implications of these cautions and the analysis in this paper is that prohibiting Medigap insurance from covering the cost-sharing obligations of Medicare beneficiaries may well have adverse quality and financial implications. These could be most severe for those who are most vulnerable: those with limited financial resources and those with significant health problems. This alone should suggest extreme caution before imposing significant new cost-sharing obligations and removing the ability of Medigap plans to offer this important and valuable financial protection to beneficiaries. In addition, ongoing changes to the Medicare system resulting from the Affordable Care Act and other contemplated systemic changes may amplify the harm that such added cost-sharing obligations could create, and so it would be wise to analyze how those changes will interact with a ban on first-dollar coverage before implementing such a ban. Moreover, unless deftly crafted, such a ban could thwart the emergence of smarter, more flexible approaches to setting cost-sharing levels, such as value-based insurance design, that could realize similar benefits while reducing potential harms.

APPENDIX A—2011 Medigap Standardized Plans Benefit Design*

Medigap plans A, B, C, D, F, G, M, and N must offer the following basic benefits:

- Coinsurance for hospital days 61–90 (\$283/day in 2011) and coinsurance for the 60 lifetime reserve days (\$566/day in 2011)
- 100% of the cost of hospital care beyond 150 days covered by Medicare, up to a maximum of 365 lifetime days
- Hospice cost share
- 20% coinsurance for Medicare-approved charges after the \$162 annual Part B Medicare deductible has been met
- The first 3 pints of blood in each calendar year

Standardized Medigap Plans A, B, C, D, F, G, M, and N

Medigap plans K and L are structured differently

	A	B	C	D	F ¹	G	M	N
Basic Benefits: See above	✓	✓	✓	✓	✓	✓	✓	✓ Copay for office & ER visit ³
Part A Hospital Deductible: First day deductible, \$1,132 in 2011 (per benefit period) ²		✓	✓	✓	✓	✓	50%	✓
Skilled Nursing Facility (SNF) Copayment: \$141.50 per day for days 21-100 of Medicare-covered stay in a skilled nursing facility (per benefit period) ²			✓	✓	✓	✓	✓	✓
Part B Deductible: First \$162 of Part B services each year			✓		✓			
Part B Excess Charges: 100% of the limiting charge (15% of the Medicare-approved amount – physicians who do not accept assignment can charge this much more)					100%	100%		
Foreign Travel Emergency Care: 80% of emergency care during the first 2 months of each trip outside the USA after a \$250 deductible, for a lifetime maximum of \$50,000			✓	✓	✓	✓	✓	✓

	K	L
Part A hospital coinsurance plus coverage for 365 additional hospital days (lifetime maximum) after Medicare benefits end	100%	100%
Part A Hospital Deductible	50%	75%
SNF Copayment	50%	75%
Hospice Cost-Share	50%	75%
First 3 Pints of Blood	50%	75%
Part B Coinsurance	50%	75%
Medicare-covered Preventive Care coinsurance	100%	100%
Part B Annual Deductible⁴	0	0
Part B Excess Charges	0	0
Total Out-of-Pocket Limit	\$4,640 ⁵	\$2,320 ⁶

4. Your payment of the Part B annual deductible is credited towards the annual out-of-pocket limit of each plan.
5. After you have paid \$4,640 in out-of-pocket expenses for covered benefits during a calendar year, the plan then pays 100% of any remaining covered benefits for the remainder of that calendar year. The Part B deductible (\$162 in 2011) is not a covered benefit but it does count towards the \$4,640 out-of-pocket limit. Part B excess charges are not a covered benefit and payment of Part B excess charges does not count toward the \$4,640 out-of-pocket limit.
6. After you have paid \$2,320 in out-of-pocket expenses for covered benefits during a calendar year, the plan then pays 100% of any remaining covered benefits for the remainder of that calendar year. The Part B deductible (\$162 in 2011) is not a covered benefit but it does count towards the \$2,320 out of pocket limit. Part B excess charges are not a covered benefit and payment of Part B excess charges does not count toward the \$2,320 out-of-pocket limit.

1. Plan F may be sold with a high deductible option of \$2,000. The benefits remain the same, but the deductible must be met each year before any claims will be paid.
2. A "benefit period" begins the day you are admitted into a hospital or a SNF (for care as an inpatient and covered by Medicare Part A) and ends 60 consecutive days following discharge during which you were neither an inpatient of a hospital nor receiving Medicare-covered care in a SNF.
3. You pay up to \$20 for each office visit. Plan N pays the remainder of any Part B coinsurance charges. The office visit copayment applies to all office visits by any provider authorized to bill Medicare for those visits. There is no annual limit on this copayment, and it must be paid for each office visit, even if you have several visits on the same day. The copayment for emergency room use is waived only if you are admitted to a hospital and Medicare covers the ER visit under Part A.

* Charts taken from http://www.cahealthadvocates.org/_pdf/facts/B-002-CHAFactSheet.pdf.