

Chapter 10

IT'S THE POLITICS, STUPID: WHY MORE "SKIN IN THE GAME" WILL NOT HELP CONTROL US HEALTHCARE SPENDING

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ABSTRACT

Purpose – To assess the claim of moral hazard proponents that individuals insulated from paying for the health care they use tend to demand more, often unnecessary, services, or engage in unhealthier behaviors than they otherwise would, collectively driving up demand and increasing health care spending (HCS).

Methodology/Approach – To test the hypothesis that moral hazard increases rather than decreases HCS, I apply a multivariate analysis to examine data from 21 OECD countries over a 20-year period, using out-of-pocket spending (OPS) as a proxy for moral hazard and as the key variable predicting HCS, controlling for other potential drivers of spending.

Findings – OPS is independently associated with HCS, yet in the direction opposite to what moral hazard theory predicts – about \$13 higher HCS per additional \$10 OPS ($p = 0.000$).

Research limitations – As with other cross-national studies, limitations include (1) inability to assess differences in health care delivery and quality within and across countries; (2) differences in the measurement and availability of variables across countries; (3) lack of access to data of potential significance, and (4) hard to evaluate cross-national political and cultural differences with implications for health policy.

Race, Ethnicity, Gender and Other Social Characteristics as Factors in Health and Health Care Disparities

Research in the Sociology of Health Care, Volume 38, 163–179

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ISSN: 0275-4959/doi:10.1108/S0275-49592020000038013

Policy implications – *At least in the United States, unless a fully publicly financed system to cover medically necessary services is implemented, the policy goals of extending adequate health insurance to a national population and controlling HCS nationally will not be met.*

Originality/Value of Paper – *Most research on moral hazard in US health care has drawn from comparisons within rather than among national health systems. Therefore, the originality and value of this cross-national study lies in its ability to identify variables that could not be included in single nation studies and which have the ability to inform policy and political action.*

Keywords: Comparative health care policy; cross national studies of health systems; healthcare spending; moral hazard in health care; politics of US healthcare; critical health policy studies

INTRODUCTION

Health care spending (HCS) in the United States continues to rise, 10 years into the greatest overhaul of the country's health care system since Medicare was implemented in 1965 (Rao & Hellander, 2014). With major changes in the political landscape and upcoming presidential elections, debates around health reform have reemerged. Notably, a fully publicly financed single-payer system – a Medicare for All rather than for Some (Archer, 2019) – is being debated side by side with incremental approaches (Neuman, Pollitz, & Tolbert, 2018), even if all too often it continues to be downplayed by both liberal and conservative thought leaders as either not “pragmatic” enough (Krugman, 2019) or even an “impossible dream” (Brooks, 2019).

With that being said, observers across the political spectrum continue to identify HCS as one key, likely the most significant, barrier to achieving universal access to health care (Davis, Stremikis, Schoen, & Squires, 2014; Riffkin, 2014; Rosenthal, 2014), and policy analysts have proposed a range of factors to explain it, including an aging population, unhealthy lifestyles, and what are seen as growing expectations about types or intensity of services from an increasingly demanding public (Congressional Budget Office, 2014; Hirsch, Balu, & Schulman, 2014; Kaiser Family Foundation, 2007).

But what continue to dominate debates about US HCS are concerns about moral hazard, i.e., an incentive to use more care than is necessary when protected by comprehensive health insurance. Those who stress moral hazard as a cause of higher HCS, “moral hazard proponents” as I shall call them, suggest that individuals with greater “skin in the (health care) game,” i.e., shouldering a greater share of the financial burden of the health care they use, tend to consume services more prudently, comparison shop for health care shown to be cost-effective, oversee medical decisions pertaining their own care, and engage in healthier behaviors, thus decreasing overall HCS through reduced utilization (Pauly, 2007; Powell & Goldman, 2016; RAND Health, 2012).

Over the years, researchers have sought to determine whether, and to what extent, moral hazard, which I operationalize as magnitude of out-of-pocket

(including “cost-sharing”) spending, affects health care seeking behaviors, and whether or not these behavioral changes affect health (Finkelstein, 2014; Finkelstein et al., 2012). Studies generally draw from the now classic RAND Health Insurance Experiment, which showed that, as intuitively suspected, users randomized to lower cost-sharing plans, i.e., with less “skin in the game,” tended to use more services, thus driving up spending – not for themselves but for the plans. Researchers in the RAND study also concluded that cost-sharing generally had no adverse effect on participants’ health, although they noted that the poorest and sickest participants had better outcomes for selected conditions – e.g., hypertension, vision health, and dental health – under the “free” (no cost-sharing) plan. These individuals also worried less about their health and had fewer restricted activity days (RAND Health, 2006).

More than 30 years after its completion, the RAND experiment continues to inform the debate around how to reform US health care (Finkelstein, 2014; RAND Health, 2006, 2012), even among critics concerned that cost-sharing may be a “blunt instrument” and impair access to medically necessary care (Gladwell, 2005), or among those who question the validity of the experiment itself (Nyman, 2007) – I discuss this point in a later section.

Whichever the case may be, debates around moral hazard are alive and well, not only concerning the US health care system but also the traditionally more generous European ones (Palladino, Lee, Hone, Filippidis, & Millett, 2016; Tambor, Pavlova, Golinowska, & Groot, 2015). Thus the topic of moral hazard remains popular, informing the movement in favor of consumer-directed care, exemplified by policies promoting “price shopping” (Sood & Whaley, 2019) and with varying degrees of cost-sharing via health savings accounts, deductibles, copays, and coinsurance (*Managed Care*, 2011; Newhouse, 2004). Ostensibly, the immediate goal is to increase “choice” through a diversity of insurance products that may include restrictions in choice and number of providers and services, higher cost-sharing at the point of use, or a combination of these – in exchange for lower premiums (Ableson, 2013; Pear, 2013), with the ultimate goal of containing health spending via decreased utilization.

In this study, I examined moral hazard cross-nationally to reveal the effect of OPS at a national level, rather than at the level of individual plans or schemes within a national health care system. With data from 21 Organization of Economic Cooperation and Development (OECD) countries over a 20-year time span (<https://data.oecd.org/health.htm> 1992–2012), I performed a longitudinal mixed model analysis using per capita out-of-pocket spending (hereafter OPS) as a predictor of per capita HCS. In the most complete model, controlling for GDP and examining changes in HCS over time, within countries and cross-nationally, OPS remained independently yet *positively* associated with HCS, i.e., *higher* OPS correlated with *higher* rather than *lower* HCS – about \$13 *higher* HCS per additional \$10 OPS ($p = 0.000$). These findings indicate that cross-national data on HCS do not support the key contention of moral hazard proponents, i.e., that by limiting utilization, OPS will contain HCS (Newhouse, 2004; Pauly, 2007). In the following sections, I offer my rationale for choice of method, describe criteria for data selection, discuss possible explanations of these findings, and elaborate

on the implications of the ideological dominance of moral hazard for health care policy, access, and equity in the United States and elsewhere.

DATA AND METHODS

OECD data have repeatedly been used in international comparisons of health systems (Anderson, Reinhardt, Hussey, & Petrosyan, 2003; Peterson & Burton, 2007; Reinhardt, Hussey, & Anderson, 2002; Schoen, Osborn, Squires, & Doty, 2013; Squires & Anderson, 2015). Country selection for the present study was guided by the international health policy literature, especially the subset examining high-income countries and addressing the question of how selected features of health care systems impact access, quality, and equity (Davis et al., 2014). Final country selection was a modified version of Navarro et al. (Navarro et al., 2006) and included Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States. To test the hypothesis that moral hazard drives up HCS, I used OPS as the key predictor variable, operationalized to include payments over and above monthly contributions to a health system via taxes or premiums, and HCS as key predicted variable. Both variables were assessed in purchasing power parity (PPP).

For direction on the choice of covariates considered relevant to HCS, I drew from the Commonwealth Fund's studies of health insurance design and spending (Schoen et al., 2010) and from the McKinsey Global Institute's report, *Accounting for Cost of Health Care in the United States*, whose goal is to inform policy setting in the public sector and plan design by insurance companies in the private sector (Farrell et al., 2008). As shown in Table 1, I selected 12 predictors of HCS: (1) per capita out-of-pocket spending; (2) percentage of the population aged 65 years or older; (3) average annual number of doctor visits per person; (4) average length of hospital stay in days per acute episode; (5) MRI exams performed annually per 100,000 individuals; (6) CT scans performed annually per 100,000 individuals; (7) percentage of smokers; (8) annual sales of pure alcohol per person aged 15 years or older; (9) percentage of the population with BMI 25 or higher; (10) annual per capita consumption of fruits in kilograms; (11) annual per capita consumption of vegetables in kilograms; and (12) annual per capita drug expenditures.

I grouped these predictors, all of them cited as potential drivers of HCS in the health care literature (Farrell et al., 2008), into six categories: (1) moral hazard; (2) population age structure; (3) health care utilization; (4) intensity of technology; (5) health status/behaviors; and (6) pricing structure. I grouped them into categories only for conceptual reasons yet tested them independently.

I analyzed the data with a longitudinal mixed model analysis. Level 1 was "annual measurements per variable within country" and level 2 was "country." Briefly, the longitudinal mixed model analysis allows for the application of a multivariate regression approach to hierarchical data (Singer, 1998),

Table 1. Variables and Operational Indicators.

Conceptual Categories	Operational Indicators Labels	Operational Indicators Description
Moral hazard	OPS	Per capita healthcare spending in PPP
Population age structure	Over65	Percentage of the population 65 years or older. Older individuals tend to require greater intensity and complexity of services than the general population, so have the potential to drive up HCS.
Health care utilization	Docs ^a	Average annual number of doctor visits per person
	Hospital ^a	Average length of hospital stay in days per acute episode
Intensity of technology	MRI ^a	MRI exams performed annually per 100,000 individuals
	CTS ^a	CT scans performed annually per 100,000 individuals
Health status and behaviors	Smokers	Percentage of smokers
	Alcohol	Annual sales of pure alcohol per person 15 years or older
	Obesity	Percentage of the population with BMI 25 or higher
	Fruit	Annual per capita consumption of fruits in kilograms
	Veggies	Annual per capita consumption of vegetables in kilograms
Pricing structure	Pharmac.	Annual per capita drug expenditures. These can be attributed to intensity of use, price per dose, or a combination of intensity and price, so establishing which factor accounts for expenditures begs the question of which drugs (and which prices) should be chosen to measure country differences in utilization. There is, however, independent evidence that higher drug expenditures are attributable to higher prices (Anderson et al., 2003), so for the purpose of this study I interpreted higher expenditures as indicating generally higher prices.

^aThese measures of utilization and intensity of technology are common in health systems research [Squires and Anderson \(2015\)](#).

i.e., quantitative information in which not all data points are “created equal” but rather belong in a context. The need to contextualize data is common in population health studies ([Leyland & Groenewegen, 2003](#)). In this study, relevant contexts included time – information was collected across 20 years – and place – information was collected both within and across countries. While the computation itself included all data points, as in a simple multiple regression, the place and time differences between these points had to be accounted for, which the longitudinal mixed model accomplishes.

I conducted the analysis with the software package IBM SPSS version 23.0. I first fitted models with each covariate at a time along with the year variable, and subsequently tested several combinations of covariates along with the year variable until I achieved the model that accounted for the greatest proportion of variance of HCS. The use of publicly available information did not constitute research on human subjects and therefore did not require IRB review.

FINDINGS

Descriptive analyses suggest that the effects of age, health care utilization, intensity of technology, and health behaviors/status are mixed and generally fail to explain differences in HCS across industrialized countries. They also indicate that the United States leads OECD countries in OPS (with the exception of Switzerland) as well as in HCS, and in percentage of the population with no health insurance or struggling to meet health care needs even when insured, confirming findings in other studies (Collins, Rasmussen, Doty, & Beutel, 2014, 2015). Descriptive analyses also show that the United States is at the lower end of the distribution in terms of age and utilization. Conversely, it ranks high in intensity of use of medical technology. Finally, descriptive analyses also reveal that the United States leads the world in drug expenditures, although not in drug consumption. In 2006, the country spent \$844 per capita on drugs, nearly twice the OECD average; yet estimates indicate that Americans consume about 10% fewer drugs per capita than do residents in other OECD countries (Farrell et al., 2008). (Descriptive data available upon request.)

I subsequently fitted models with each covariate at a time along the year variable. These analyses revealed several predictors of HCS, yet some relationships changed in significance, direction, or magnitude after controlling for GDP.

As shown in Table 2, predictors of *higher* HCS included OPS, which was positively associated with HCS. This association remained significant and positive, yet weaker, after controlling for GDP. Utilization as measured by length of hospital stay also predicted higher HCS, although the association disappeared after controlling for GDP. Intensity of technology use measured by number of MRI and CT scans also predicted higher HCS, and the association remained significant and unchanged in direction after controlling for GDP. Given the high percentage of missing MRI and CT scan exams data, however, findings must be interpreted with caution (present and missing data available upon request). Finally, there was a positive association between drug expenditures and HCS that remained significant and unchanged in direction after controlling for GDP.

This initial bivariate analysis also revealed several predictors of *lower* HCS, as shown in Table 2. For instance, age was negatively associated with HCS, yet after controlling for GDP the association remained significant but became positive. Utilization, as measured by doctor visits, was also negatively associated with HCS, both before and after controlling for GDP. Among health behaviors/status

Table 2. Bivariate Analyses (Estimates of Fixed Effects) before and after Controlling for GDP.

Parameter	NO Control for GDP		Control for GDP	
	Estimate ^a	Sig.	Estimate	Sig.
OPS	1.92	0.000	0.94	0.000
Over65	-44.80	0.038	24.14	0.050
Docs	-159.30	0.000	-36.81	0.000
Hospital	95.97	0.000	-5.37	0.503
MRI ^b	19.03	0.000	11.71	0.000
CTS ^b	4.88	0.000	3.35	0.002
Smokers	-20.14	0.012	8.13	0.110
Alcohol	4.59	0.770	-23.24	0.000
Obesity ^b	3.01	0.894	9.03	0.628
Fruit	0.68	0.500	-2.76	0.000
Veggies	-3.60	0.000	-0.75	0.196
Pharmac.	4.29	0.000	2.54	0.000

^aRounded up to the nearest integer.

^bFindings must be interpreted with caution due to missing data.

indicators, consumption of vegetables was negatively associated with lower HCS, yet this association disappeared after controlling for GDP.

Likewise, smoking behavior was negatively associated with HCS, yet the association disappeared after controlling for GDP. Alcohol consumption was initially not associated with HCS, although after controlling for GDP, a negative association emerged. Similarly, fruit consumption was initially not associated with HCS, yet after controlling for GDP a negative association emerged. Finally, obesity was not associated with HCS, before or after controlling for GDP, although this finding must be interpreted with caution due to insufficient data.

I subsequently tested several combinations of covariates along with the year variable and performed model diagnoses exploring normality of residuals and assumptions about independence of observations. I found that assumptions were reasonably satisfied and identified good fit and compliance with model assumptions. Next, I tested multiple models and eliminated those that presented problems due to insufficient data.

In the most complete model, shown in [Table 3](#), controlling for per capita GDP and accounting for dependency of measurements overtime and within countries, six covariates, in addition to OPS, remained statistically significant: doctor visits, length of hospital stay, drug expenditures, smoking behavior, alcohol, and fruit consumption. As displayed in [Tables 3 and 4](#), drivers of *lower* HCS included doctor visits ($p = 0.000$), fruit consumption ($p = 0.003$), and smoking ($p = 0.000$), whereas drivers of *higher* HCS included OPS ($p = 0.000$), length of hospital stay ($p = 0.000$), alcohol consumption ($p = 0.000$), and drug expenditures ($p = 0.000$).

Table 3. Multivariate Analysis (Estimates of Fixed Effects) in the Most Complete Model.

Parameter	Estimate	Std. Error	df	<i>t</i>	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	850.705473	345.341011	80.776	2.463	0.016	163.556320	1,537.854625
Year 1992	62.327354	19.441880	10.092	3.206	0.009	19.061521	105.593188
GDP	0.027414	0.005890	73.153	4.654	0.000	0.015676	0.039153
OPS	1.314216	0.315617	100.539	4.164	0.000	0.688083	1.940349
Over65	1.368997	20.601586	101.601	0.066	0.947	-39.496075	42.234068
Docs	-46.127967	17.296794	78.861	-2.667	0.009	-80.557319	-11.698614
Hospital	19.073562	6.444494	94.815	2.960	0.004	6.279303	31.867822
Pharmac	1.525354	0.431413	73.205	3.536	0.001	0.665590	2.385117
Smokers	-32.786563	5.920948	90.582	-5.537	0.000	-44.548531	-21.024595
Alcohol	60.064895	13.565032	75.833	4.428	0.000	33.046831	87.082959
Fruit	-2.508948	0.801502	65.781	-3.130	0.003	-4.109298	-0.908599
Veggies	-1.706502	1.168732	96.607	-1.460	0.147	-4.026230	0.613227

Dependent variable: HCC Health care spending per capita per year (USD).

Table 4. Comparing Statistical Significance and Direction of Potential Predictors of HCS throughout Bivariate and Multivariate Analyses.

Parameter	Bivariate, No GDP Control	Bivariate, GDP Control	Multivariate
OPS	Yes, positive	Yes, positive	Yes, positive
Over65	Yes, negative	Yes, positive	No
Docs	Yes, negative	Yes, negative	Yes, negative
Hospital	Yes, positive	No	Yes, positive
MRI ^a	Yes, positive	Yes, positive	Not included
CTS ^a	Yes, positive	Yes, positive	Not included
Smokers	Yes, negative	No	Yes, negative
Alcohol	No	Yes, negative	Yes, positive
Obesity ^a	No	No	Not included
Fruit	No	Yes, negative	Yes, negative
Veggies	Yes, negative	No	No
Pharmac.	Yes, positive	Yes, positive	Yes, positive

^aFindings must be interpreted with caution due to missing data.

DISCUSSION

Using data from the 21 OECD countries over 20 years to test moral hazard cross-nationally and over time, I chose OPS as proxy of moral hazard and predictor variable and HCS as key predicted variable. In the most complete model OPS was independently and positively associated with HCS – about \$13 *higher* HCS per additional \$10 OPS ($p = 0.000$). These findings challenge the key claim of moral

hazard proponents, that controlling HCS requires that users have greater “skin in the game,” i.e., bear even greater cost-sharing than they already do, and that except for low-income, high-risk individuals, “the rest of us should only have [generous coverage] if we are willing to pay its true costs [out of pocket]” (Pauly, 2007).

The challenge is particularly compelling in a US scenario if, as virtually all researchers concerned with HCS imply, the concern is to control spending at the national level rather than to ensure the profitability of individual health plans. Of note, *it does not follow that reducing OPS would reduce HCS* – correlation is not causation. However, findings do suggest that there is no reason to endorse cost-sharing as a public policy tool to contain HCS nationally, and many reasons to reject it, given its well-established harmful effects on health care access and health, especially among low-income populations – as shown in the RAND experiment – and increasingly among other sectors of US society.

In fact, a little debated challenge to the RAND experiment – dismissed as “implausible” by RAND researchers (Newhouse et al., 2008, p. 295) – suggests that HCS in that experiment may have decreased substantially in the cost-sharing arms because participants dropped out of these arms in significantly larger numbers than in the “free” arm *because of OPS*, and that this attrition led to reduced hospital use in the cost-sharing arms of the experiment. As noted by John A. Nyman, proponent of this interpretation,

...if so, the RAND finding that cost-sharing could reduce health care utilization, especially utilization in the form of effective and appropriate hospital procedures, with no appreciable effect on health, is spurious. (Nyman, 2007, p. 759)

Cost-sharing US style harms not only lower-income Americans, but people in all income levels: about one-third (30%) of participants in a Commonwealth study, with *moderate* incomes (between 200 and 399% of FPL), and one in six (14%) participants with *high* income (at or above 400% FPL) experienced unaffordable HCS and were more likely than their counterparts to skip needed health care and not fill prescriptions (Collins et al., 2015).

As US hospitals report record levels of debt from patients with patently inadequate and inscrutable health coverage, the treatment of choice continues to be yet more inscrutable forms of financial protection – flexible spending, health reimbursement, health savings accounts, and the like (Murawski, 2017). As to the system itself, mainstream researchers and policy analysts continue to limit their recommendations to cosmetic rearrangements that never call into question commercial health insurance for services deemed medically necessary (Collins et al., 2014, 2015; Riffkin, 2014; Schoen et al., 2010) and call instead for further research, even if there is scant reason to believe that research will yield *different* findings about the effects of cost-sharing or that the problem of its harmful effects can be resolved by better “targeting” its use.

Findings also identify drivers of lower spending and likely better quality of care, such as a higher number of doctor visits, suggesting that a population freer to visit a doctor upon perceived need and unconstrained by narrow networks or cost-sharing may be better equipped to prevent minor health problems from worsening and subsequently burdening health systems.

Another independent predictor of lower HCS in the multivariate model was smoking. This finding was at odds with some studies (Fishman, Khan, Thompson, & Curry, 2003; Miller, Ernst, & Collin, 1999), yet consistent with others (Barendregt, Bonneux, & van der Maas, 1997). While it could be explained by the fact that smoking leads to decreased society-wide HCS because smokers tend to die at earlier ages, inconsistencies appear to be explained by differences among study designs, whether they include comparisons of nonsmokers with smokers, smokers before and after they quit, differences in study duration, or a combination of these. Either way, efforts toward smoking cessation and consumption of healthy foods (lower fruit consumption was also an independent predictor of lower HCS) should be supported for public health and equity reasons, whatever their instrumental value to reduce HCS. Cost-sharing, which is increasingly, and dramatically, impairing the ability of a growing number of Americans to meet basic needs such as food, shelter, or clothing (Hamel et al., 2016; Sanger-Katz, 2016), should also be rejected for public health and equity reasons.

CONCLUSIONS

Yet the question remains, if it is not moral hazard, why does the United States spend more than any other country on the planet to provide at best uneven, at worst standard health care to its population (Squires & Anderson, 2015), and what, if anything, should be done about it?

Over a decade ago, economist Gerald Anderson and colleagues proposed that it was the uniquely high prices in US health care that explained why the country was “so different” when compared to other high-income countries (Anderson et al., 2003, p. 89). This position was endorsed more recently by Squires and Anderson (2015) with the Commonwealth Fund. I wish, however, to argue that what is critical to understand HCS, in the United States as elsewhere, is that this spending is driven not by impersonal forces but by how the system is financed, which is a political decision. Therefore, seemingly technical attempts to “reform” US health care have all but consolidated the role of commercial insurance in the financing of medically necessary services, for reasons that have been extensively discussed elsewhere (Geyman, 2009; Himmelstein et al., 2014; Jiwani, Himmelstein, Woolhandler, & Kahn, 2015; Navarro, 1989).

The continuing dismissal (Krugman, 2017, 2019; The Editorial Board, 2019), manufactured confusion about (Rosenthal & Luthra, 2018), when not outright banning of even debating (*Democracy Now*, 2009), legitimate alternatives, has led to \$500 billion annually of forgone collective savings in bulk purchases of drugs, hospital administration and billing (Woolhandler & Himmelstein, 2017), and imposed \$31.0 billion annual spending on physician practices interacting with multiple, ever-changing, for-profit health plans (Casalino et al., 2009), estimates that do not include the emotional and economic burden on patients (Marvin, 2017).

Reliance on commercial insurance also enables a *decreasing* number of *increasingly* powerful insurance conglomerates to compete for the higher yield segments of a profitable market, i.e., “good customers” likely to need less care yet

able to pay whatever will achieve levels of profitability acceptable to the industry. No risk is involved, as when profits are threatened by “bad customers” (i.e., real people with health needs and often limited resources), the insurance industry simply withdraws from these unprofitable segments of the market (Herman, 2016).

LIMITATIONS

As with other cross-national studies, this one has limitations, including (1) inability to assess differences in health care delivery and quality within and across countries; (2) less than ideal estimates of certain variables (e.g., obesity); (3) variations in the measurement and availability of variables across countries; (4) lack of access to data of potential significance (e.g., some measure of physical activity leading to better health and potentially lower HCS), and (5) vast, cross-national differences in political culture that could impair the implementation of certain approaches (e.g., public vs private financing) and which make comparisons exceedingly difficult.

That being said, these limitations pervade cross-national studies – whether of HCS and cost-sharing (Perkowski & Rodberg, 2016), or of other relevant features of health systems – such as utilization or (Casalino et al., 2009) prices (Squires & Anderson, 2015), yet they have not stopped researchers from conducting cross-national studies. Indeed, limiting the critical question of the relevance of moral hazard to HCS to within-country studies merely because cross-national studies involve challenges would imply that researchers, policymakers, and activists should ignore health care developments other than in their own countries. A cursory examination of the history of policy changes and political struggles pervading health systems from the creation of the British NHS in 1948 to the more recent establishment of National Health Insurance in Taiwan in 1994 flies in the face of this contention.

In fact, it could be argued that cross-national studies have unique strengths, because they can reveal aspects of health systems that would remain concealed in within-country analyses. For example, only a cross-national study as that conducted by Schoen and colleagues can reveal how insurance design at the *system* level accounts for differences in access to, and affordability of, care across countries (Schoen et al., 2010). Similarly, only a cross-national study can reveal if OPS is a useful strategy to control HCS at the *system* level, the level that matters to a national health policy. Therefore, while conclusions in this study should be interpreted with caution, the same applies to studies asserting that greater OPS will decrease HCS.

Yet another limitation is that I have not discussed the “provider side” of moral hazard, meaning that HCS may be driven not only by patients’ but also by providers’, behaviors – for instance, no penalties for overprescribing (Finkelstein, 2014, p. 73) – a variable not included in this study. This is true, yet it does not undermine the validity of the challenge this study presents to the widespread and dominant belief that a major driver of HCS is greater use by patients when they are protected by comprehensive health insurance.

Finally, it can also be argued that cost-sharing, as discussed by moral hazard proponents, is different from OPS, the variable I used in this study because it is the one available in the OECD data base as an indirect measure of cost-sharing. OPS *includes* cost-sharing – payments such as copays, coinsurance, or deductibles that plan holders must pay for covered services, over and above premiums – but is not limited to it: it also includes payments for services not covered by a plan. That OPS is not identical to cost-sharing is correct. However, once again this point makes no difference to mine: both cost-sharing and OPS allude to payments over and above predictable contributions to health plans, thus both variables are useful to test the “greater-skin-in-the-game-lowers-HCS” hypothesis.

POLICY IMPLICATIONS

Despite these limitations, the policy implications of this study are significant. Unless a real Medicare for All – a fully publicly financed system to cover medically necessary services rather than one that merely adds an option to a hopelessly fragmented financing system – is seriously considered, the policy goals of extending adequate health insurance to a national population *and* controlling HCS nationally will not be met. Refusal to challenge the commercial insurance model will inevitably lead to higher HCS and impaired access, as shown by close to 30 years of similar, failed experiments (Woolhandler, Day, & Himmelstein, 2008).

An additional concern is that the preoccupation with moral hazard will continue to inform the design of health plans that are breeding a crisis likely more severe than that of the uninsured: health insurance without health care. As a 2014 Gallup poll revealed, 33% of *insured* US residents put off medical treatment due to cost, among the highest figures in the 14 year history of Gallup asking this question (Riffkin, 2014). One in five participants in a Kaiser Family Foundation study identifying US adults unable to pay medical bills *had* insurance, especially individuals with higher deductible plans (i.e., greater “skin in the game”) (Hamel et al., 2016). Significantly, not even employer-sponsored health insurance – the pillar of the current system which the ACA was ostensibly intended to protect – is working. As deductibles become the norm and soar, one in five US workers with employer-sponsored coverage report that HCS has all but wiped out their savings (Hamel, Muñana, & Brodie, 2019). Even the much celebrated decrease in the number of uninsured population following the implementation of the ACA mandate (Pear, 2015) has plateaued since 2016 (Berchick, Hood, & Barnett, 2018).

Of note, the United States is not alone when it comes to the perils of relying on cost-sharing as a strategy to control spending. Switzerland, where residents must purchase coverage from competing insurers, has been experimenting with varying degrees of cost-sharing with the ostensible goal of controlling spending and increasing consumer choice – of health plans, but not of providers and services. Yet the country continues to face significant spending increases – only second to

the United States – and an increasing number of individuals fail to pay their premiums or cannot afford OPS (Chaufan, 2014; OECD/WHO, 2011).

In concluding, the ideological dominance of moral hazard is institutionalizing underinsurance (Rao & Hellander, 2014), distorting the debate concerning which type of health care reform would benefit Americans, and excluding by fiat any serious consideration of real, proven, and legitimate alternatives. This dominance is a matter of grave concern and demands not further research on cost-sharing or on the drivers of HCS; rather, it calls for bold policy and political action (Khan, 2019).

The goal of this study has been to document that the concern with moral hazard as a driver of HCS at the systems' level – the level relevant to a national health policy – is not supported by the evidence. In so far as the dominance of moral hazard continues to legitimize the implementation of inadequate and inequitable health coverage, it will also undermine the development of policy and political strategies with the potential to achieve not only better health but also greater health care justice.

CONFLICT OF INTERESTS

I declare no conflict of interests.

FUNDING

While conducting the analysis I was partially funded by the US Fulbright Commission and health a position as Fulbright Research Chair in Global/Public Health at the School of Health Policy and Management at York University in Canada.

ACKNOWLEDGMENTS

An earlier version of this chapter was presented at the 2015 Annual Meeting of the American Sociological Association. While completing the analysis I was funded by a US Fulbright Scholar Award.

My appreciation to Hugh McCague, with the Institute for Social Research at York, for his indispensable assistance with the statistical analysis, to Patrick Fox for his continuing mentorship and feedback on the manuscript, and to Julian Field, my husband and friend, for his editorial suggestions and invaluable support with the completion of this project.

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