PERSPECTIVES

PHOENIX CENTER FOR ADVANCED LEGAL & ECONOMIC PUBLIC POLICY STUDIES

No Free Lunch:

The Economic Cost of Coverage Mandates on Health Insurance Premiums

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Insurance premiums reflect the expected cost of covered losses. It follows, therefore, that higher expected claims will eventually produce higher premiums; insurers cannot systematically pay claims that premiums do not cover.

And insurance premiums are rising.

Homeowner's premiums have hit record highs, with property insurance costs up nearly 80% since 2020, driven largely by natural disasters.[1] Auto premiums are up 55% since 2020 as car prices, parts and repair prices, and medical bills rise.[2] Growth in health insurance premiums outpaces property and casualty insurance as care costs rise and new drugs and treatments demand high prices.[3]

Adding to rising health premiums is an ever-broadening array of federal and state health-insurance mandates that require health insurers to cover additional products and services, pre-existing conditions, or pay a larger share of care costs.[4] These mandates seem attractive when framed as shifting payment from patients to insurers, but assigning an insurer the statutory obligation to pay for treatments does not determine the bill's economic incidence.[5]

In this PERSPECTIVE, I ask the simple question: who pays for cost-increasing regulations on health insurers? The answer is the American consumer. Using audited premium and medical-claims data for five of the largest publicly-traded managed-care organizations in the U.S., I estimate a long-run elasticity of premium revenue with respect to medical claims of 1.0. Thus, if claims rise 1%, premiums rise 1%, and for each additional dollar of medical claims imposed by regulatory mandates health insurance premiums rise by $1.22 to cover additional costs.[6] The incidence of higher claims falls fully—more than fully in fact—on premium payers.

The point of this analysis *** is simply to demonstrate that, while a legislature can make an insurer write the check, it cannot make the insurer bear the cost. Premium payers, not insurers, bear those costs.

Legislation that increases medical claims through coverage mandates is thus partly to blame for rising insurance premiums. That is not to say that higher premiums are an indictment of mandated benefits; a legislature may conclude that certain services should be purchased collectively through insurance, and such mandates appear to have bipartisan support.[7] The point of this analysis is not to analyze that moral/political question. It is simply to demonstrate that, while a legislature can make an insurer write the check, it cannot make the

insurer bear the cost. Premium payers, not insurers, bear those costs.

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The Mandate Issue

Mandates come in a variety of forms from both the federal and state governments. Such mandates affect claims, of course, and those claims are costs to an insurer, and costs are passed through, to a greater or lesser extent, to those who pay insurance premiums. Also, mandates are not limited to the coverage of drugs or services. Regulatory reporting requirements also raise costs, and those costs likewise impact premiums.

Mandates cover a range of pharmaceutical and medical services. For example, twenty-five states and the District of Columbia require some form of fertility coverage, and thirteen specifically require payment for in-vitro fertilization.[8] Autism services and chiropractic care are also often mandated. The average state carries roughly forty distinct benefit mandates, a count that has risen steadily since the 1960s.[9] Studies indicate that mandates are expensive—the estimated average effect of a single mandate on premiums is on the order of 0.6%, with a state's full mandate set estimated at between five and twenty-two percent of claims.[10]

Cost-sharing mandates, unlike service mandates, leave the covered service unchanged but reassign the split between the patient's deductible or copayment and the plan's share. As an example, twenty-nine states and the District of Columbia cap insulin cost-sharing, generally between $25 and $100 for a thirty-day supply.[11] Notably, a $35 cap does not reduce the price of insulin but moves a portion of that price from the pharmacy's cash register to the health plan and, after pass-through, from the plan to insurance premiums. The same insured population pays less at the counter and more each month, transferring income to those in need of insulin from those that do not.

Regulations that do not target health services directly are also costly. All fifty states now regulate pharmacy benefit managers ("PBMs"), and twenty-six enacted new PBM legislation in 2025 alone.[12] The 2025–2026 wave has centered on ownership restrictions, licensure and transparency requirements, rebate pass-through obligations, and "delinking" rules that prohibit tying PBM compensation to drug prices. Some states have mandated increases in dispensing fees, which certainly raise costs. PBM regulation is frequently advanced as cost-reducing, but such claims are speculative at best and lack any supporting evidence. Regulation of the sort imposed on the PBM industry have no apparent cost-saving features, and some rules are nakedly cost increasing and knowingly so.[13] Those costs will be passed through to the PBMs' insurer clients.[14]

The largest mandates are federal. The Affordable Care Act prohibits insurers from excluding coverage for pre-existing conditions, requires them to issue coverage to any applicant, and forbids setting premiums on the basis of health status.[15] A carrier must accept an applicant whose expected claims greatly exceed any premium the carrier is permitted to charge, and must charge that applicant the same as everyone else in the rating class. Since one cannot insure against a pre-existing condition, the Affordable Care Act merely transfers the management of a social program to private insurance carriers with the costs imposed on the healthy members of the insurance pool.

Notably, none of these observations are a criticism of any special mandate. Society, operating imperfectly through elected representatives, may willingly incur the costs of other people's care, and may view such transfers as another form of insurance against future illness. Still, the affordability of health care is a major concern, and people are being priced out of health coverage. A large collection of small cost increases in premiums can swell into a large cost increase. The effect on costs, and thus premiums, requires careful deliberation and balance, neither of which (arguably) is in the government's wheelhouse.

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Empirical Analysis

The empirical question considered here is how changes in medical claims pass through to premium revenue. That is, are higher claims from mandates paid by premium payers or are they absorbed by insurers.

Let P denote premium revenue and C the expected claims incurred by the insurer. Ignoring the timing of claims and premiums, the relationship between premiums and claims is,

$$P = (1+m)C \ , \qquad (1)$$

where $(1 + m)$ is the markup. Federal law regulates the markup for health insurers through the medical loss ratio ("MLR"), the share of premium revenue spent on medical claims and qualifying health-care activities. The Affordable Care Act generally requires an MLR of at least 80 percent in the individual and small-group markets and 85 percent in the large-group market, with rebates to policyholders when an insurer falls below the applicable threshold. The quantity $(1 + m)$, then, is regulated to a maximum of approximately 1.18 to 1.25, though it could fall below that level, say by competitive forces, without restriction. Several states impose even higher MLRs. Identification of the effects of MLR regulation is beyond the scope of this analysis.

Differentiating Expression (1) renders,

$$\Delta P = (1+m)\Delta C \ . \qquad (2)$$

Expression (2) shows that premium revenue is affected by the changes in claims incurred multiplied by the margin $(1 + m)$. The markup $(1 + m)$ need not be constant and may be influenced by a variety of factors including competition, the elasticity of demand, and MLR regulation. Also, insurance premiums are set prospectively, so P and C need not be contemporaneously measured. This analysis is intentionally kept simple and regards the markup (or "loading" in insurance parlance) as constant.

In log form, the relationship between premiums and claims incurred is,

$$\Delta \ln P = \Delta \ln(1+m) + \Delta \ln C \ . \qquad (3)$$

With a constant markup ($\Delta\ln(1 + m) = 0$), Expression (3) collapses to $\Delta \ln P = \Delta \ln C$. The relationship between premiums and claims is estimated by the regression equation,

$$\Delta P_{it} = \alpha_0 + \alpha_1 \Delta C_{it} + \alpha_2 \Delta C_{it-1} + \lambda_t + \nu_{it} \ , \qquad (4)$$

where P_{it} is premiums collected by carrier i at time t, C_{it} is claimed incurred in period t and $C_{it\text{-}1}$ is its one-year lag to account for timing discrepancies, λ_t is a year fixed effect, and ν_{it} is the disturbance term.[16] The sum $\alpha_1 + \alpha_2$ measures the *dollar* change in premiums for a *dollar* change in claims incurred, which is the mean markup m.

The regression equation in logarithms is,

$$\Delta \ln P_{it} = \beta_0 + \beta_1 \Delta \ln C_{it} + \beta_2 \Delta \ln C_{it-1} + \lambda_t + \nu_{it} \quad (5)$$

The sum $\beta_1 + \beta_2$ coefficient measures the *percentage* change in premiums for a percentage change in claims incurred, and β_0 is $\Delta\ln(1 + m)$, which offers a direct test of a constant markup.

Data and Specification

The sample comprises five of the largest publicly traded managed-care organizations with sufficient data: UnitedHealth Group, Elevance Health, Humana, Centene, and Molina Healthcare. Premiums earned and benefits incurred are taken from each firm's audited annual reports via the Securities and Exchange Commission's XBRL company facts interface, and premium and claims incurred are constructed from the *Premiums Earned Net* and *Policyholder Benefits and Claims Incurred HealthCare* elements.[17]

The balanced panel runs from 2010 through 2022 and contains 65 firm-years. While data for 2023 through 2025 are available, observations after 2022 are excluded because the 2023–24 unwinding of pandemic-era Medicaid continuous enrollment and subsequent changes to Medicare Part D materially altered enrollment, risk composition, and the timing and allocation of plan payments and claims, disrupting the ordinary relationship between premiums and incurred medical costs. The impact of those policy changes, while interesting, are beyond the scope of this analysis.

Results

Estimates are summarized in Table 1. Standard errors are robust to heteroskedasticity; the null hypothesis of no serial correlation was not rejected at the 10% in levels or logs, so clustered standard errors, which would be problematic with so few clusters, are not required.[18]

Consider the log-log model of Equation (5) first. Both the contemporaneous and lagged claims coefficients are positive and statistically significant at the 5% level or better. The constant is small and is not statistically distinguishable from zero (p = 0.85), suggesting the markup has remained approximately constant over the sample period.

The estimated contemporaneous elasticity of premiums with respect to claims is $\beta_0 = 0.94$, while the coefficient on lagged claims growth is $\beta_1 = 0.057$. The estimated long-run elasticity is therefore 0.997 ($p < 0.001$) with a 95% confidence interval of [0.941, 1.053]. The estimate of the elasticity is exactly the value predicted by a stable markup model. The null hypothesis of complete proportional pass-through (Joint Test = 1) cannot be rejected (p = 0.92). A 10% increase in claims incurred increases premiums by 10%.

Table 1. Regression Results

	Log-Log Model	Lin-Lin Model
ΔC_t	0.9396***	1.0423***
	(30.52)	(24.38)
ΔC_{t-1}	0.0575***	0.1752***
	(2.79)	(3.89)
Constant	-0.0008	-1.0e+08
	(-0.19)	(-0.27)
Joint Test = 0	0.9970***	1.2174***
	(35.82)	(28.98)
Joint Test = 1	-0.0030	0.2174***
	(-0.11)	(5.18)
Obs	55	55
R^2	0.987	0.976
F	655***	505***

*Table summarizes the estimated coefficients and joint tests from Equations (4) and (5). Claims incurred variables are in natural logs for the Log-log Model and levels for the Lin-lin Model. First differencing and the lag remove two observations per firm. Joint test is the sum of the coefficients on the claims variables tested against the null hypotheses of 0 or 1. Statistical significance indicators are *** 1%, ** 5%, and * 10%. Tests do not reject the null hypothesis of no serial correlation, so robust standard errors are used.*

A proportionate pass through is not the same as a dollar-for-dollar pass through. The log-log model shows that claims and premiums rise in essentially the same proportion, but because

premiums are above claims, the dollar increase in premiums exceeds the dollar increase in claims.

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The lin-lin model of Equation (4) provides that dollar-for-dollar pass through. The long-run pass through of a $1 change in claims incurred is $1.22. That figure falls inside the 1.18-to-1.25 range implied by the MLR rules described above, and its inverse, 0.82, lies between the 80 and 85 percent statutory floors. The markup computed from the carriers' income statements is about where the statute would put it. Thus, an additional dollar of medical claims from a mandate (or other regulation that increase costs) is associated in the long run with approximately $1.22 of additional premium revenue. A cost-increasing regulatory burden increases premiums by more than the cost increase as carriers must cover other costs and additional costs related to the regulation itself. The constant term is again small and not statistically different from zero.

While the sample carriers vary in size, no single carrier drives the result. Re-estimating the model while excluding each of the five carriers in turn produces long-run elasticities ranging from 0.976 to 1.004 and a dollar pass through never moving far from 1.214 to 1.224. Across the major managed-care companies, premiums move proportionately with medical claims, and a $1 increase in claims increases premiums by $1.22.

Additional Thoughts

For the most part, the relationship between premiums and claims is nearly mechanical (the R^2 of each regression is near 1.0), and perhaps that is the point. If premiums did not adjust to rising claims, then the medical loss ratio would rise steadily and insurer margins would be compressed. What the data show, however, is that the loss ratio is approximately constant, and changes in claims are passed through to premiums. That is, sustained increases in medical costs are accompanied by sustained increases in premium revenue. To the extent that a regulatory mandate raises net medical claims, absent offsetting savings, those regulations increase insurance premiums; they do not impact insurer margins.

These data are aggregates, so this analysis does not identify the incidence of any single mandate; the estimates describe the average long-run co-movement of premiums and claims among large publicly traded carriers. Premium adjustments may differ across market segments, regulatory environments, and time horizons, and the sample does not directly observe how a particular benefit requirement affects utilization, offsets other medical spending, or changes enrollee behavior.

Altruism and empathy are potent motivations in health care, but so is affordability. The cost of a cost-increasing mandate, whatever its motivation, does not disappear when the legislature assigns the bill to an insurer. It shows up in premiums. One patient's benefit is another person's cost. There is no free lunch.

Conclusions

An insurance mandate can tell a health insurance company what it must pay for; it cannot determine who ultimately bears the cost. If a mandate increases medical claims, then the additional cost must be financed either through higher premiums or reduced insurer margins.

Both the structure of insurance pricing and the statistical evidence indicate that increases in claims are financed through premiums alone. The estimated long-run elasticity of premiums with respect to claims is 1.0, and premiums rise about $1.22 for every $1 increase in claims.

This analysis says that premiums rise with claims; it says nothing more. Whether a mandate is good policy is a separate question. Some benefits may be worth more to beneficiaries than they cost or may reduce other medical spending over time, but those are empirical questions. Altruism and empathy are potent motivations in health care, but so is affordability. The cost of a cost-increasing mandate, whatever its motivation, does not disappear when the legislature assigns the bill to an insurer. It shows up in premiums. One patient's benefit is another person's cost. There is no free lunch.

NOTES:

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3 Data available at: https://fred.stlouisfed.org/series/WPS411103; https://fred.stlouisfed.org/series/PCU9241269241263.

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5 J. Gruber, *The Incidence of Mandated Maternity Benefits*, 84 AMERICAN ECONOMIC REVIEW 622–641 (1994).

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10 *Id.*; J. Bailey and N. Blascak, *The Effect of State Health Insurance Benefit Mandates on Premiums and Employee Contributions*, 23 APPLIED ECONOMIC LETTERS 1042-1046 (2016).

11 American Diabetes Association, State Insulin Copay Caps (available at: https://diabetes.org/tools-resources/affordable-insulin/state-insulin-copay-caps).

12 National Academy for State Health Policy, State Pharmacy Benefit Manager Legislation (available at: https://nashp.org/state-tracker/state-pharmacy-benefit-manager-legislation); L. Kimbrough, *PBM Legislation Tackled Ownership Restrictions, Transparency, and More in 2025*, MULTISTATE (January 27, 2026) (available at: https://www.multistate.us/insider/2026/1/27/pharmacy-benefit-manager-pbm-legislation-tackled-ownership-restrictions-transparency-and-more-in-2025).

13 *See, e.g.*, G.S. Ford, *TN's `Affordability' Bill Will Make Drugs More Expensive*, THE TENNESSEAN (April 10, 2026) (available at: https://www.tennessean.com/story/opinion/contributors/2026/04/10/tennessee-fair-rx-act-drug-prices-affordability/89547155007/?gnt-cfr=1&gca-cat=pp&gca-ds=override).

14 Financial data indicate that PBMs operate on very thin margins, so the full pass through of costs is expected. G.S. Ford, *The PBM Profit Myth*, PHOENIX CENTER POLICY BULLETIN No. 77 (July 2025) (available at: https://phoenix-center.org/PolicyBulletin/PCPB77Final.pdf).

15 Patient Protection and Affordable Care Act §§ 1201, 2701–2705, codified at 42 U.S.C. §§ 300gg to 300gg-4 (guaranteed issue, prohibition on pre-existing condition exclusions, and prohibition on health-status rating).

16 The lagged cost term makes firm-level fixed effects redundant. A second lag of claims was not statistically significant.

17 Cigna and CVS are excluded because too few usable observations remain for either. Cigna's filings before 2019 report premiums for its entire book (health, disability, life, and international) against claims incurred for health coverage alone, so

NOTES CONTINUED:

the ratio of the two is not a loss ratio; with differencing and a lagged term, the remaining years contribute two observations. CVS wrote only $3.6 billion in premiums in 2017, roughly two percent of revenue, and became a major insurer only through its November 2018 acquisition of Aetna; its 2019 premium growth reflects that acquisition rather than pricing, and excluding that year leaves three observations. Including both carriers leaves the long-run estimate essentially unchanged at 1.212 (versus 1.217).

[18] D.M. Drukker, *Testing for Serial Correlation in Linear Panel-Data Models*, 3 STATA JOURNAL 168-177 (2003); J.M. Wooldridge, ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA (2002).