Policy Brief

RAND COMPARE

Analysis of the Affordable Health Care for America Act (H.R. 3962)

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On November 7, 2009, the U.S. House of Representatives passed the Affordable Health Care for America Act (H.R. 3962) by a vote of 220 to 215. The bill seeks to provide affordable, quality health care for all Americans.

RAND undertook an analysis of the provisions of this bill related to expanding coverage for people who currently do not have health insurance. Using the COMPARE microsimulation model, RAND estimated the potential effects of H.R. 3962 on changes in the number of uninsured, the costs to the federal government and the nation, revenues from penalty payments, and consumers' health care spending. In addition, we estimated the effects associated with different scenarios for expanding coverage. These scenarios provide insights into how the various provisions of the bill (i.e., the individual mandate, the employer mandate, and the Medicaid expansion) contribute to the estimated changes in coverage and spending. Moreover, these analyses illustrate how sensitive the estimates are to key design choices (e.g., the size of the penalty associated with an individual mandate) or modeling assumptions (e.g., administrative costs for insurance offered through the Health Insurance Exchange).

Summary of Major Findings

Coverage

- The bill would reduce the number of uninsured to 24 million by 2019, a 56% decrease relative to the projected trend in the status quo.
- Those without insurance in 2019 will be younger, healthier, and wealthier than we would expect in the absence of the policy changes.
- Compared with the projected status quo trend, by 2019, about 12 million more people would be enrolled in employer-sponsored insurance, 10 million more enrolled in Medicaid, and 8 million more enrolled in nongroup insurance (including the Exchange).
- Among those who purchase insurance through the Exchange in 2019, the vast majority (95%) would choose the Basic plan, with the remaining few split between the Enhanced (3%) and Premium (2%) plans.

Spending

- The estimated $753 billion cumulative increase in personal health spending between 2010 and 2019 represents an increase of 3.3% over the status quo projection.
- Between 2010 and 2019, cumulative federal spending on subsidies for those who obtain insurance through the Exchange would be $445 billion. Approximately 53% of the 25 million people purchasing insurance through the Exchange in 2019 would receive a federal subsidy.
- Medicaid spending is projected to increase by $559 billion between 2010 and 2019, a 21% increase over the projected trend in the status quo.
- Penalty payments for those not complying with the mandates would total $75 billion from individuals and $108 billion from employers between 2013 and 2019.
- We project that, in 2019, average insurance premiums in the large group (employer) market will be at least 2% lower than projected in the status quo.
- We project some increase in insurance premiums for the most common nongroup policies. The increase is higher in the first few years after the reform (8%) and becomes negligible by 2019, with an average increase over the whole period of about 4%. When the market stabilizes (2016–2019), the premiums will be about 2% higher than would

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have been observed in the nongroup market without the policy change. The presence of subsidies will further soften the effect of this increase on the population.

Consumer Financial Risk

- On average, people who were previously uninsured would spend more money on health care than they did previously but would face a lower risk of very high expenditures and a higher level of consumption of health care services. Once we take into account these two benefits, the population is made better off by the policy change. The people who would gain most are those who obtain insurance through Medicaid and the Exchange, while those who enroll in employer-sponsored insurance (ESI) would gain relatively little.

Effects of Alternate Design Choices and Assumptions on Results

- The individual mandate has the largest independent effect on increasing coverage but if implemented alone would increase federal spending more than projected under H.R. 3962.
- In the absence of a penalty for noncompliance with the individual mandate, 4.9 million fewer people would obtain coverage; increasing the penalty from 2.5% to 3.5% of adjusted gross income would increase coverage by less than 1 million.
- The subsidy structure affects decisions about choice of plan; in the absence of subsidies, people enrolling in the Exchange choose the full range of options. The cost-sharing subsidy would cause most people to enroll in the plan with the lowest actuarial value.
- We assume that plans in the Exchange would have lower administrative costs than the current nongroup market (12% versus 35% currently). We modeled an intermediate assumption, 20% administrative costs, and found that the results were not sensitive to this higher rate.
- We examined three different Medicaid eligibility thresholds (133%, 150%, 200% of the federal poverty level [FPL]) and found that this choice would have little effect on the number of uninsured but would result in differences in the distribution of insurance choices and resulting costs to the federal government.

Provisions of H.R. 3962 Included in This Analysis

H.R. 3962 is a multifaceted bill that addresses a wide range of issues related to improving the functioning of the health care system, including expanding health insurance coverage, changing Medicare payment rules in both traditional and Medicare Advantage plans, eliminating the coverage gap for prescription drug coverage (Part D), initiating pilot projects to enhance primary care capacity and test new care delivery models, funding comparative effectiveness research, enhancing efforts to reduce fraud and abuse, investing in the health care workforce, investing in public health, creating a prevention and wellness trust fund, and improving the Indian Health Service.

We focused this analysis on the provisions of H.R. 3962 that are designed to increase the number of people who are insured. Specifically, the bill does the following:

- Establishes new regulatory requirements for qualified health benefit plans, including that (1) they must sell insurance to anyone who wishes to purchase it, generally referred to as "guaranteed issue"; (2) premiums can vary only on the basis of age, family composition, and geography, and the most expensive policy can be only twice as expensive as the least expensive policy, known as "rate banding"; (3) risk equalization methods will be used to ensure that plans are neither advantaged nor disadvantaged by the population that chooses to enroll in them.
- Expands the insurance options available to potential new purchasers by creating a national market for selling health insurance called the Health Insurance Exchange. The Exchange would include three main plans with different levels of cost-sharing (Basic, Enhanced, and Premium) for a standard benefit package.
- Includes a public health insurance plan to be offered through the Exchange starting in 2013. The public plan will be subject to all of the same requirements as private plans (e.g., standard benefit package, provider network requirements, consumer protections), is expected to be financially self-sustaining, and must negotiate rates (rather than use the Medicare fee schedule).
- Requires that everyone have insurance through either private sources or public programs, known as an "individual mandate."
- Allows for a penalty of 2.5% of family income beyond the filing limit ($8,950 for single filers or $17,900 for joint filers in 2008), to be charged to anyone who does not comply with the individual mandate. The penalty is capped at the premium cost of the Basic option available through the Exchange.
- Makes available affordability credits, or subsidies, to persons in lower-income households (defined as income between 150% and 400% of FPL) to offset the costs of purchasing health insurance. Affordability credits are available only to people who purchase insurance through the Exchange.
- Requires that employers with payrolls of more than $500,000 offer health insurance to their workforce, known as an "employer mandate." Employers must pay 72.5% of the premium for a single plan or 65% of the premium for a family plan.

- Establishes penalties of up to 8% of payroll for employers with payrolls greater than $500,000 who elect not to offer health insurance. The 8% penalty is phased in for employers with payrolls between $500,000 and $750,000.
- Requires employers to automatically enroll their employees in the lowest-cost insurance plan unless the employees are otherwise insured (e.g., through Medicaid or a spouse's employer offer).
- Expands Medicaid eligibility to include everyone below 150% of FPL.
- Mandates insurers in the group market to operate at a medical loss ratio of at least 85%, or appropriately compensate enrollees otherwise.

What We Found

We report our findings in three major sections: the effect of H.R. 3962 as passed on coverage, spending, and consumer financial risk; the relative contribution of different options for expanding coverage on the overall results; and the sensitivity of the estimated effects to different design options and model assumptions.

The Estimated Effects of H.R. 3962 on Coverage

The Number of Uninsured Decreases by 56%

We estimate that H.R. 3962 would reduce the number of uninsured to approximately 24 million by 2019 (Table 1). Because we assume that it would take at least three years to create the Exchange and have companies ready to offer approved products in that market, we show the effects of this policy change beginning in 2013. We assume that implementation would phase in between 2013 and 2015 so that the number of uninsured will decrease in each year between 2013 and 2015, at which point the number of uninsured will stabilize. This represents a 56% decrease in the number of uninsured relative to the estimated number of uninsured in the country if no new policies are introduced (about 53 million). (See Figure 1.)

Table 1
Estimated Number of People (millions) Insured Under H.R. 3962 Versus the Status Quo

	Year									
Insurance Status	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Status Quo										
Medicaid/SCHIP	35	35	36	36	36	37	37	37	37	38
Employer-sponsored insurance	153	153	154	154	154	155	155	155	156	156
Nongroup	17	17	17	17	17	17	17	17	17	17
Other	15	15	15	15	16	16	16	16	16	16
Exchange	0	0	0	0	0	0	0	0	0	0
Uninsured	49	50	50	51	51	52	52	52	53	53
Under H.R. 3962										
Medicaid/SCHIP	35	35	36	41	45	46	46	47	47	48
Employer-sponsored insurance	153	153	154	154	162	167	167	168	168	168
Nongroup	17	17	17	6	2	0	0	0	0	0
Other	15	15	15	15	16	16	16	16	16	16
Exchange	0	0	0	16	21	24	24	25	25	25
Uninsured	50	50	50	41	29	23	23	23	23	24
Difference										
Medicaid/SCHIP	0	0	0	5	9	9	9	10	10	10
Employer-sponsored insurance	0	0	0	0	8	12	12	13	12	12
Nongroup	0	0	0	–9	–15	–17	–17	–17	–17	–17
Other	0	0	0	0	0	0	0	0	0	0
Exchange	0	0	0	16	21	24	24	25	25	25
Uninsured	1	0	0	–10	–22	–29	–29	–29	–30	–29

NOTE: SCHIP = State Children's Health Insurance Program.

Figure 1
House Bill Would Reduce the Number of Uninsured by 56% Relative to Status Quo

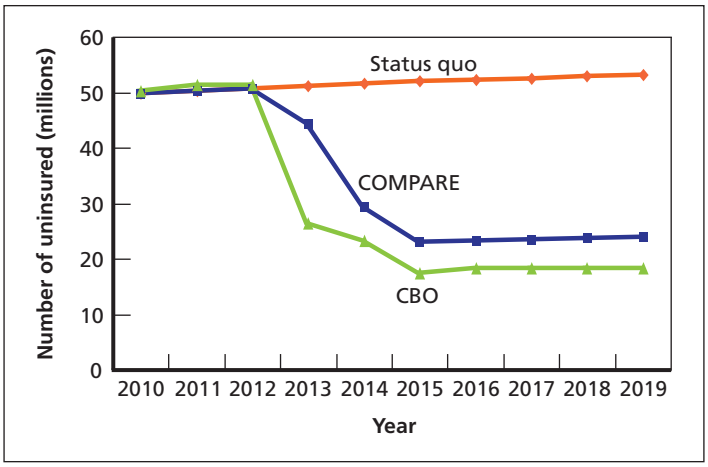
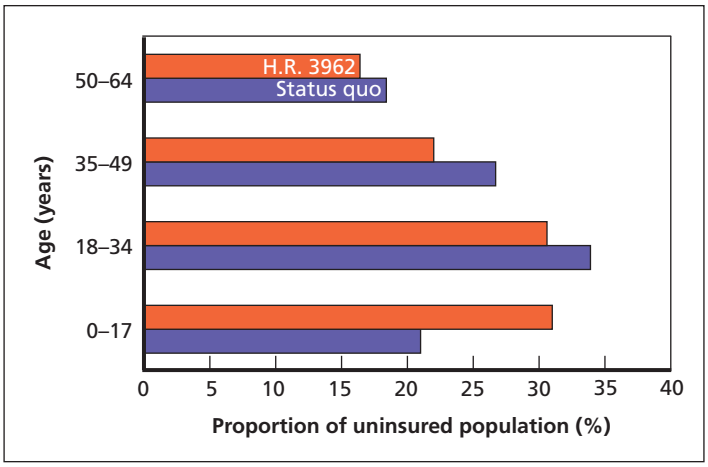
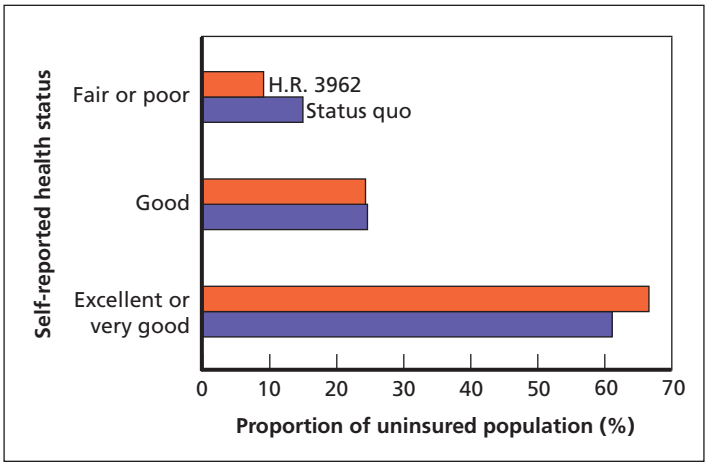


Figure 2
Uninsured in 2019 Are Younger Than Projected Under Status Quo



Our results are consistent with the aggregate estimates from the Congressional Budget Office (CBO), although CBO projects a more rapid decrease in the rate of uninsured than we assume in our model. CBO also estimates that about 6 million fewer people will remain uninsured in 2019. Some of this discrepancy comes from the fact that our estimated average take-up rate for Medicaid is lower than CBO's. We have not attempted to include in the simulation additional efforts by state and federal governments to improve access to Medicaid (e.g., through outreach efforts). Our Medicaid take-up rate is relatively low because the newly eligible population has a different composition than the currently eligible population (e.g., more males among the newly eligible). The newly eligible population has a lower value for Medicaid enrollment than does the currently enrolled population and thus is less likely to enroll in Medicaid.

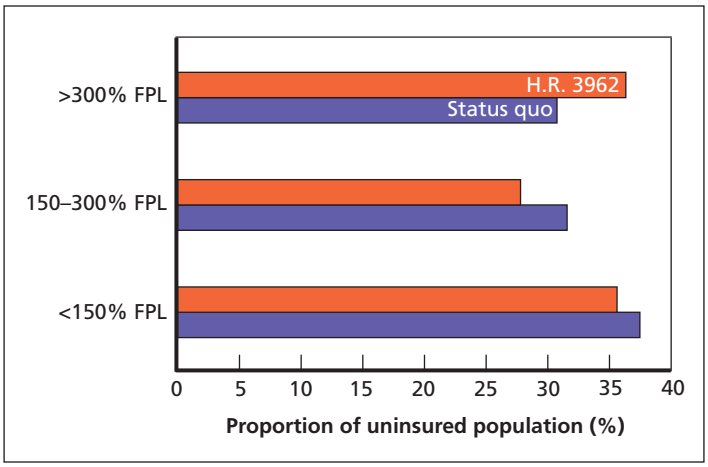
Figure 3
Uninsured in 2019 Are Relatively Healthier Than Projected Under Status Quo



Those Uninsured in 2019 Are Younger, Healthier, and Wealthier

According to our projections, in 2019, those who are uninsured after implementation of H.R. 3962 are younger, healthier, and wealthier than those who would be uninsured under the status quo. (See Figures 2–4.) We found that the number of uninsured persons declines in every age group. The largest reduction, 11 million, is seen in the 18–34 age group, and the smallest, 4 million, is seen among children age 0–17. Because the policy change has such a large effect on adults relative to children, after implementation of the legislation children constitute a larger proportion of the uninsured population (31%) than in the status quo projection (21%). Those who report their health status as fair or poor are less likely to be uninsured in 2019 than we would expect in the absence of the policy change; a higher propor-

Figure 4
Uninsured in 2019 Are "Wealthier" Than Projected Under Status Quo



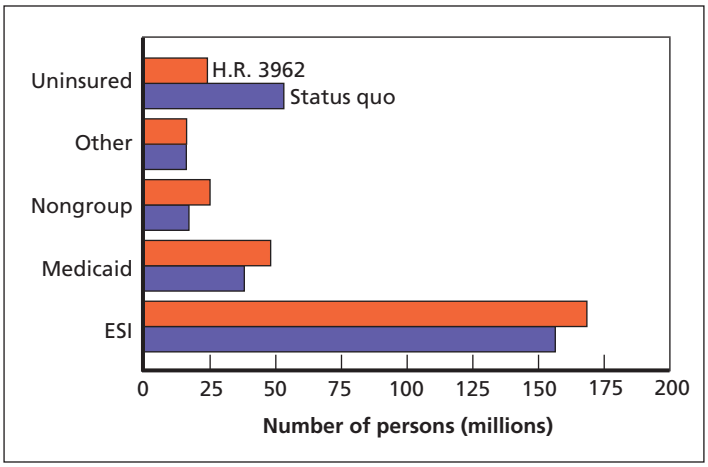
tion of those who report that their health is excellent or good are likely to be uninsured after implementation of the legislation. Persons with incomes between 150% and 300% of FPL have the largest relative decrease in uninsurance rates. The proportion of the uninsured with incomes greater than 300% of FPL is higher with the legislation than in the status quo projection.

Employer-Sponsored Insurance Continues as Dominant Source After Policy Change

Relative to the status quo, by 2019 the combination of insurance expansion measures contained in the legislation lead to 12 million additional people insured through employers, 10 million additional people enrolled in Medicaid, and 8 million additional people purchasing insurance through the nongroup (Exchange) market. (See Figure 5.) This represents an 8% increase in people on ESI, a 26% increase in the number of people on Medicaid, and a 43% increase in the number of people in the nongroup market. Among the nonelderly insured in 2019, 65% have ESI, 19% are enrolled in Medicaid, 10% have obtained insurance through the Exchange, and 6% have another source of insurance (e.g., military). By increasing the number of young and healthy people with insurance, the hope was that insurance premiums in the large group market would be lower, but there is considerable uncertainty about the size of this effect.

We included in our modeling only the 85% minimum medical loss ratio provision, which we project will lead to a 2% reduction in average group premiums. The effect will be larger for small firms, which are more likely to face high administrative costs and therefore benefit from the set minimum. This figure represents a lower bound on the premium reduction in the ESI market. Given that individuals are not very sensitive to variation in ESI premiums, it seems unlikely that this and other premium-lowering provisions would attract a significant number of people into the ESI market.

Figure 5
Newly Insured Obtain Coverage Through Employers, Medicaid, Exchange



People Purchasing Through the Exchange Are Older and Sicker Than People with Employer-Sponsored Insurance

In 2019, only 8% of those with insurance through the Exchange are under age 18, whereas children make up 26% of those with ESI. Similarly, 38% of the people on the Exchange are age 50–64, compared with 21% of those with ESI. Not surprisingly, the population purchasing insurance through the Exchange reports lower health status than those with ESI. Nearly 18% of people in the Exchange report being in fair or poor health, which is in stark contrast to the 5% of people on ESI who report being in fair or poor health.

The Majority of People in the Exchange Choose the Basic Plan

Our base-case simulation projects that by 2019, 95% of those obtaining insurance through the Exchange select the Basic plan, and 55% of those selecting the Basic plan are receiving a subsidy. The remaining 5% obtaining insurance through the Exchange are split between the Enhanced and Premium plans (neither of which is subsidized). This result is very sensitive to the assumption that the cost-sharing subsidy can be implemented effectively. In fact, our analysis indicates that the lack of participation in the plans with higher actuarial value is due to the cost-sharing subsidy provisions in H.R. 3962. If there were no cost-sharing subsidy, only 73% of those in the Exchange would choose the Basic plan, while 15% would choose the Enhanced plan and 12% the Premium plan. This is because the effect of the cost-sharing subsidy is to decrease the eligible individual's out-of-pocket expenditures, as if the individual were on a plan of a higher actuarial value. With a cost-sharing subsidy in place, there is little incentive for people eligible for the subsidy to select the Enhanced or Premium plans, as they can purchase the lower-cost Basic plan and use the subsidy to experience the same level of cost-sharing available in the more generous plans. The subsidy amount decreases with an individual's income, but it is available to those whose incomes are less than 400% of FPL, and therefore it reaches a fairly large proportion of the population.

The proportion of people choosing the Basic plan could be lower than the predicted 95% and closer to the 73% predicted in the absence of a subsidy. Experience with the Massachusetts Connector and Medicare Part D suggests that people may indeed choose to enroll in the more expensive options even though they can get the same coverage from the Basic plan—that is, to make choices that are not in their best financial interest. Taking into account these uncertainties,

we conclude that between 73% and 95% of the population would choose the Basic plan, with the rest almost equally split between the Enhanced and Premium plans.

The Estimated Effects of H.R. 3962 on Spending

Overall U.S. Personal Health Care Spending Would Increase by 3.3%

Personal health care expenditures would increase as a consequence of the reform: Previously uninsured individuals become insured and utilize more health care services, and previously insured people select more generous plans in response to subsidies.

We project that the additional U.S. personal health care expenditures resulting from the implementation of H.R. 3962 will be $753 billion, cumulatively from 2013 to 2019 (Table 2). According to the projections of the National Health Expenditure Accounts from the Centers for Medicare and Medicaid Services (CMS), cumulative U.S. personal health care expenditures for the same period will be $22.5 trillion. Therefore, U.S. personal health care spending would increase by 3.3% over the period 2013–2019 as a consequence of the policy change. (See Figure 6.) If we look at 2019 only, rather than at the whole period, we reach a slightly larger number. We project additional expenditures in 2019 of $139 billion, with a CMS projection for that year of $3.1 trillion. The corresponding increase for 2019 only is therefore 4.5%. These figures are consistent with other estimates from the literature and are compatible with the assumption that uninsured people who become insured increase their expenditures by a factor of 50 to 100 percent. Part of the reason these figures are low is that the majority of the uninsured are young, with 62% of them being under age 34, so their expenditures are low.

We did not offset these projected increases in spending with potential savings that might result from a variety of pilot projects that are called for in the legislation or from other secondary effects related to previously uninsured people entering Medicare healthier than they would have without acquiring insurance. In the timeframe of the analysis, we concluded that these efforts were unlikely to be adopted

Table 2
Estimated Effect of H.R. 3962 on Health Care Spending ($ billions) Relative to the Status Quo

	Year										
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**Total**
Status Quo											
Personal health spending*	1,622.5	1,722.2	1,833.8	1,961.9	2,104.2	2,264.3	2,440.5	2,631.1	2,840.9	3,066.2	22,487.5
Medicaid/ SCHIP	199.6	210.6	222.8	236.9	252.3	269.8	288.4	308.8	330.9	354.6	2,674.8
Subsidies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H.R. 3962 New Spending											
Personal health spending	0.0	0.0	0.0	54.9	87.0	106.8	114.0	121.8	129.5	139.4	753.3
Medicaid/ SCHIP	0.0	0.0	0.0	52.2	72.8	76.6	80.1	86.0	92.6	99.0	559.2
Subsidies	0.0	0.0	0.0	39.9	54.2	58.9	64.2	69.8	75.5	81.9	444.5
H.R. 3962 New Revenue											
Penalty payments by individuals	0.0	0.0	0.0	3.1	7.4	11.9	12.4	13.0	13.5	14.0	75.3
Penalty payments by employers	0.0	0.0	0.0	14.7	15.3	14.9	15.5	16.3	15.6	16.1	108.3

*Estimates of personal health spending are based on Medical Expenditure Panel Survey data, which include only the noninstitutionalized population and thus do not include costs associated with long-term care and other components of national health spending.

Figure 6
House Bill Would Increase Cumulative National Health Spending by 3.3% over the Status Quo

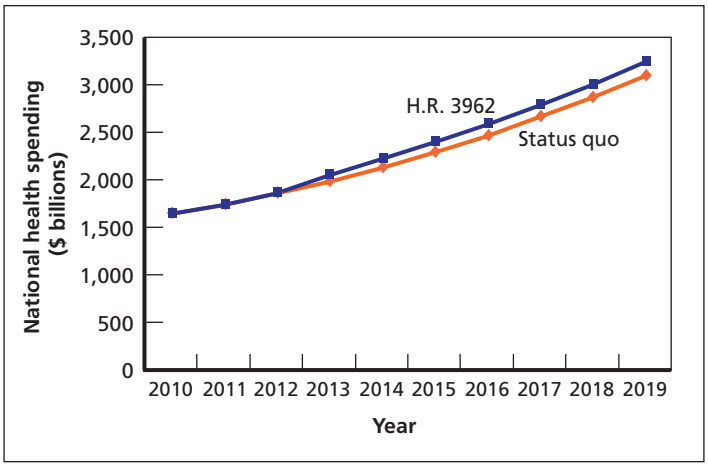
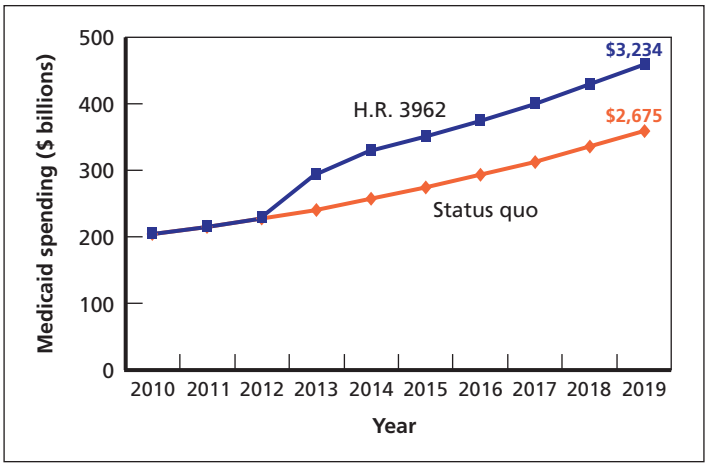


Figure 7
Cumulative Medicaid Spending Would Increase by $559 Billion, a 21% Increase over the Status Quo



on a broad scale and that estimates of the likely reduction in spending would be highly speculative. Even under these conservative assumptions, the projected increases in spending are modest.

New Government Spending on Coverage Provisions Would Total $1 Trillion

New government spending associated with the insurance coverage provisions of H.R. 3962 between 2013 and 2019 is estimated to be $1.0 trillion. This spending comes from cumulative increased federal and state Medicaid expenditures associated with the eligibility expansion ($559 billion; see Figure 7) and federal payments of affordability credits for eligible people participating in the Exchange ($445 billion). There are other federal expenses associated with H.R. 3962 that are not captured here. Generally, in this analysis we have focused only on those provisions that relate to insurance coverage. Costs associated with the bill's provisions that do not directly affect coverage are not considered. These costs are described in CBO's analysis of the bill (CBO, 2009) and stem from a range of programs, such as wellness grants to small businesses, a temporary high-risk insurance pool, a public health investment fund, and the administration of the Health Insurance Exchange. One coverage-related cost that is not included in our estimate is the small business tax credits associated with the employer mandate. CBO estimates that the cumulative cost of the small business tax credits between 2010 and 2019 will be $25 billion (CBO, 2009).

Between 2013 and 2019, cumulative federal spending on affordability credits, or subsidies, claimed by people obtaining policies through the Exchange are estimated to be $445 billion. We estimate that 53% of the 25 million people obtaining insurance through the Exchange in 2019, or 13 million people, will be receiving a subsidy. Subsidies can support premium payments and cost-sharing; however, we estimate that the vast majority of payments (92%) go toward premiums.

CBO projects that subsidies will cost about $574 billion over this same period (CBO, 2009). The two estimates differ because CBO projects that 5 million more people will receive subsidies through the Exchange. Once we account for this discrepancy, our subsidy estimates become very similar to CBO's. In fact, our average subsidy per subsidized enrollee ($6,277 in 2019) is close to what CBO reports ($6,800 in 2019).

A partial explanation for this difference is that we start in 2010 with 3 million more people on ESI than CBO, and people who are offered ESI are not eligible for subsidies.

Cumulative Penalty Payments Would Total $183 Billion

Penalty payments from individuals will total $75 billion, and payments from employers will total $108 billion over the 2013–2019 period. The average penalty paid in 2019 is $1,051.

These estimates represent an upper bound of revenues from penalties because we assume that the Internal Revenue Service (IRS) can collect all penalties that are incurred. We are also assuming that penalties incurred in a given year are collected in that year. If we assume a one-year lag, the payments incurred in 2019 would not be credited, reducing the total penalty payments from individuals to $61.4 billion and from employers to $92.2 billion (total penalty revenue of $154 billion). Assuming that the IRS could collect these amounts is optimistic, but there is no agreed-upon proportion that is "collectible," so we report the upper bound.

Our penalty revenue estimates are higher than those reported by CBO for individuals ($33 billion); this largely stems from the fact that CBO estimates that more people

will be insured under this legislation than we do. Our estimates of employer penalties are lower than those reported by CBO ($135 billion).

Premiums in the Large Group Market Are Likely to Decline

Our estimates indicate that insurance premiums in the large group (employer) market decrease under H.R. 3962. In 2019, with the policy change, the average individual premium in the employer market will be $7,821, compared with $8,011 in the status quo projection.

In the model, the reduction in premiums in the employer market likely comes from new limitations on the medical loss ratio and a change in the composition of the people purchasing insurance through the employer market. In practice, premiums in the employer market may be further reduced by increased competition created by the Exchange, but we do not model this effect specifically because we do not have a good empirical basis for such estimates.

Premiums in the Nongroup Market Are Likely to Increase Modestly

As the reform is phased in, the nongroup market undergoes major changes. The major insurance market changes (i.e., guaranteed issue, community rating, and premium rate banding) result in younger and healthier people in the nongroup market facing higher premiums, giving them an incentive to leave their plans, which in turn leads to a "death spiral" of ever-increasing premiums for those plans. As this happens, however, the Exchange plans start becoming available. Helped by lower administrative costs and risk equalization that limits adverse selection, these plans attract not only those leaving the traditional nongroup market, but also previously uninsured young and healthy people who are responding to the requirements of the individual mandate. Our simulation does not provide details about how this transition would occur, but our results suggest that the Exchange will eventually effectively replace the current nongroup market. The overall effects of these changes on the premium of the nongroup market policy bought by most people are small. During the period 2013–2015, when the reform is still being phased in, there is an increase in premiums that averages 8%. However, premiums settle down in the subsequent years, and the average increase for the period 2013–2019 is about 4%. In the new steady state (2016–2019), premiums in the Exchange market are 2% higher than in the status quo nongroup market.

We emphasize that this number should not be taken as a measure of change in welfare for the population currently in the nongroup market: Premiums paid by the population are lower on average, since subsidies are available. This number also hides important distributional issues since, while younger and healthier people face higher premiums, sicker and older individuals will face lower premiums. In addition, the Basic plan in the Exchange is somewhat more generous than the typical, current nongroup policy, which means that people may be paying more but they are also getting more in return. A more complete analysis of the overall welfare of the population is presented in the section below on consumer financial risk.

If we look at the population that switches from nongroup to the Basic plan, we can identify two different groups of people. Those who take the Basic plan in the first year are less healthy, and the combined effect of the subsidy and the fact that their premiums before the reform were high means that they experience a significant decrease in premiums of about 16% on average. Those who enroll in the Basic plan in the second and third year after the reform is implemented on average experience little or no decrease in premiums. Overall, those who switch from existing nongroup coverage to the Basic plan experience an average decrease in premiums of about 5%.

The Estimated Effects of H.R. 3962 on Consumer Financial Risk

Newly Insured Have Higher Average Expenses, But Face Lower Risk of Catastrophic Expenses and Have Higher Utilization Rates

Under H.R. 3962, we estimate that average spending on health care among the newly insured will increase. The increase stems in large part from the fact that those newly insured through ESI or the Exchange now pay health insurance premiums; they also use more health care services than they did when they were uninsured, and they are subject to a different level of cost-sharing. We estimate that average individual spending for those newly acquiring ESI will be $462 higher under the policy change than would otherwise be the case. Average spending among people newly insured through the Exchange will increase by $1,918. In contrast, people who newly enroll in Medicaid will spend $408 less on average than in the previous year. People newly enrolling in Medicaid have a reduction in out-of-pocket spending because they do not pay premiums and have very low cost-sharing requirements.

Those gaining insurance through ESI or the Exchange face an important trade-off. In return for higher average spending, these individuals face a lower risk of having unexpectedly high, possibly catastrophic, health expenditures. In addition, they also benefit from the increased consumption of health care services. To determine whether the trade-off generated by increasing insurance coverage makes people better off on average, we calculate the net benefit. This calculation compares the disutility associated with higher average

out-of-pocket expenditures to the utility gains associated with a reduced risk of catastrophic expenditures and with having access to more health care services.

We calculate the net benefit associated with gaining insurance separately for each type of insurance (i.e., ESI, Exchange, Medicaid). For all groups, the net benefit is found to be positive, though the size of the benefit varies across groups. The largest benefit accrues to those who gain insurance through the Exchange ($2,163) or Medicaid ($2,139). The net benefit for people gaining insurance through ESI is much lower ($64).[1] The reason for such a low number is that this group is very different from the other two: Its members tend to have much higher incomes, and, in the status quo, a low level of both medical expenditures and risk. Therefore, this group stands to gain the least from becoming insured, and it is compelled by the requirements of the individual mandate to take up insurance.

The Relative Impact of Major Bill Provisions

We ran the microsimulation model under different reform scenarios to isolate the independent effects of each of the main provisions—the individual mandate, the employer mandate, and the Medicaid expansion—on the results. We first estimated the effects of scenarios where we assumed that only one of these provisions was enacted (e.g., individual mandate only, no employer mandate, or Medicaid expansion). We then estimated the effects of scenarios that included two of the three provisions. Comparing the results across these scenarios provides insights into the contributions of the different model provisions and how they interact with each other to generate changes in insurance coverage and spending.

Individual Mandate Plays the Largest Role in Increasing Insurance Coverage

Estimates from scenarios that include each major coverage provision separately (i.e., individual mandate, employer mandate, and Medicaid expansion) indicate that the individual mandate by itself would reduce the number of uninsured in 2019 to 30 million, a reduction of 23 million relative to the status quo projection. In contrast, the employer mandate and the Medicaid expansion by themselves reduce the number of uninsured by only 7 million and 10 million, respectively, relative to the status quo.

With the individual mandate alone, however, new federal spending ($1.035 trillion) would be higher than under the other two scenarios because the individual mandate encourages increases in coverage by subsidizing insurance costs. The individual mandate alone results in twice as many people being subsidized (13 million under H.R. 3962 and 26 million with an individual mandate alone). When an individual mandate and an employer mandate are combined, as in H.R. 3962, some people who would have purchased through the Exchange and been subsidized will take up coverage newly offered by their employer, thus reducing the number of people receiving government subsidies and the cost to the federal government. The employer mandate provisions of H.R. 3962 require that employers pay a substantial portion of insurance premiums for their employees, effectively creating a subsidy from the employer rather than the government.

Sensitivity of Results to Different Policy Design Choices

Increasing the Size of the Individual Mandate Penalty Increases Insurance Coverage

We estimated the effects of H.R. 3962 assuming three different individual mandate penalties: no penalty, 2.5% of income (as written in the bill), and 3.5% of income. We find that if the individual mandate had no penalty for noncompliance, 4.9 million fewer people would be insured in 2019 relative to what we estimated with the 2.5% of income penalty currently in the bill. Increasing the penalty to 3.5% of income, however, would increase the number of people insured in 2019 by 770,000 relative to the estimates based on a 2.5% penalty. The increased penalty level, however, would increase the average penalty paid from $1,051 to $1,405 in 2019.

Premium increases in the nongroup market in the absence of an individual mandate are similar to those observed with an individual mandate in place. The increase in premiums in the Exchange market in the first few years would be 10% (versus 8% with a mandate). Over the 2013–2019 period, the premium increase would be 6% (versus 4% with a mandate). In the steady state (2016–2019), the premium increase would be 3% (versus 2% with a mandate).

With Cost-Sharing Subsidies, Very Few People Enroll in the Plans with Higher Actuarial Value

As noted previously, our estimates of the effects of H.R. 3962 indicate that very few people purchasing insurance through the Exchange choose to enroll in the Enhanced or Premium plans. This is due to the presence of the cost-sharing subsidy, which makes the Basic plan the most attractive for people who are eligible for subsidies. We estimated the effects of H.R. 3962 assuming that the cost-sharing subsidy associated with the individual mandate was removed. Under this scenario, both the Enhanced and the Premium plans are more attractive, and we see a greater proportion of people purchasing insurance through the Exchange choosing to enroll in the higher-level plans. Under H.R. 3962, we estimate that 95% choose the Basic plan, 3% choose the Enhanced plan, and 2% choose the Premium plan. When no cost-sharing

[1] These figures are in 2013 dollars.

subsidy is available, we estimate that 73% choose Basic, 15% choose Enhanced, and 12% choose Premium.

Shifting people onto the Basic plan is only one of the effects of the cost-sharing subsidy. Being a form of subsidy, albeit not very common, it reduces the cost of acquiring health insurance and increases the insured rate. The overall effect of the cost-sharing subsidy on the number of uninsured is fairly small: The net effect is to insure an additional 1.7 million people at an additional cost of $13.8 billion.

Estimated Effects of H.R. 3962 Are Not Highly Sensitive to Assumptions Regarding the Administrative Costs in the Exchange

One of the expected benefits associated with the formation of the Health Insurance Exchange is lower administrative costs for companies offering policies through the Exchange. In our estimate of the effects of H.R. 3962, we assume that administrative costs can be reduced to 12% from 35%. We also estimated a model assuming administrative costs of 20% to determine whether the results would change if the Exchange were not able to achieve such large reductions in administrative costs. Our estimates indicate that if administrative costs were 20% rather than 12%, the number of insured people in 2019 would fall by less than 1 million. As expected, higher administrative costs lead to higher premiums in the Exchange market. With administrative costs at 20% in 2019, the premium in the Basic plan would be $8,330, compared with $7,902 with administrative costs of 12%—that is, a 5% difference.

Varying the Medicaid Eligibility Threshold Has Little Effect on Coverage

We estimated the effect of varying the eligibility threshold for Medicaid. Specifically, we considered three scenarios: 133%, 150% (as in H.R. 3962), and 200% of FPL. We find that decreasing the Medicaid eligibility threshold from 150% to 133% of FPL reduces the number of people on Medicaid in 2019 by 1.9 million; however, the number of uninsured increases by just 500,000. Of the 1.9 million people who would have enrolled in Medicaid under more generous eligibility rules, about 27% would be uninsured, 46% would purchase insurance through the Exchange, and 26% would accept an insurance offer from their employer. With the lower threshold in place (133% of FPL), we estimate that cumulative government spending (Medicaid expenses and subsidy payments) would be $51 billion less than with the higher threshold in the bill (150% of FPL). While cumulative Medicaid expenses are $115 billion less, subsidy payments are $64 billion higher since more people purchase insurance through the Exchange.

We find that when Medicaid eligibility is expanded from 150% to 200% of FPL, about 700,000 additional people obtain coverage. This higher eligibility threshold results in 6.5 million more people enrolling in Medicaid, 1.5 million fewer people accepting ESI, and 4.3 million fewer people purchasing insurance through the Exchange. Under this scenario, many people drop private coverage to take up Medicaid. This has two effects on federal spending. First, Medicaid spending is much higher than it would be otherwise. Second, there is a countervailing effect on spending, as fewer people are purchasing through the Exchange and thus subsidy spending is reduced. Expanding eligibility for Medicaid to 200% of FPL increases federal spending by $166 billion relative to the expansion as included in the bill (i.e., 150% of FPL).

Conclusion

Using the RAND COMPARE microsimulation model, we estimated the effects of the coverage-related provisions of H.R. 3962 on changes in the number of people without insurance, personal health care and government spending, and consumer financial risk. We found that, if enacted as written, the legislation would decrease the number of uninsured from 53 million to 25 million, would increase national health spending by 3.3% between 2013 and 2019, and would result in a net benefit to those who become newly insured. We found that the individual mandate has the greatest independent effect on reducing the number of people without insurance but that the addition of the employer mandate results in lower costs to the federal government than would otherwise occur. We tested the sensitivity of our findings to some decisions about how to structure the legislation and to some of our assumptions and found that the results were relatively insensitive to most of these changes. Removing penalties for failure to comply with the individual mandate had the greatest effect on our results; in the absence of penalties, 5 million fewer people would likely become insured. ■

Appendix 1: Modeling Parameters and Assumptions

We have described in greater detail elsewhere how the RAND COMPARE microsimulation model works (Girosi et al., 2009). We provide a brief overview here to put our results in context.

Overview of Our Modeling Approach

We constructed a dataset that represents the U.S. population and some of the key entities involved in the private and public market for health insurance (e.g., individuals, households, employers, government, insurance companies). Based on previous studies by other researchers and our own analyses, we assigned a set of behavioral rules to each entity in the dataset. The rule set essentially tells an individual, employer, or insurance company what to do if the conditions under which health insurance are offered change. The entities in the model respond to changes by following the rules that we assign to them. When conditions change, entities have several opportunities to make decisions; this continues until everyone decides that no further change is necessary to satisfy their preferences, known as a new equilibrium.

We used a utility maximization framework for our analyses, as contrasted with a cost minimization and/or elasticity framework used by other groups, including CBO. Under cost minimization, the behavioral rules assigned to entities always lead them to pick the lowest-cost option available. In the utility maximization framework, individuals take into account several factors when making their decisions: They experience disutility from out-of-pocket expenditures and from the risk of incurring high or catastrophic expenditures, but they also place value on receiving health care services. In this framework, we create a set of rules that reflect differences in these factors for different groups in the population.[2] For example, people who are older and in poorer health have a higher value for health insurance in general than people who are younger and healthier. Similarly, people with higher incomes, who tend to consume more health care services, tend to have a higher utility for health insurance. In our developmental work, we found that the utility maximization framework better reflects the choices that people are making currently. For these reasons, we believe that this method is the best basis for predicting responses in the future to changes in policy.

To see how the U.S. population might respond to a change in health policy, we "perturb" the status quo by introducing new alternatives or choices. The entities in the dataset respond to the availability of these new choices and either change their current status (for example, from being uninsured to enrolling in a subsidized plan in the Exchange) or stay with their current choice. We count up the changes made and summarize the new state of the world. This tells us both how well the policy change accomplishes its objectives and the costs associated with the new state of the world. We examined the effects of these policy changes from 2010 (the year the legislation is presumed to be enacted) through 2019.

Our model has undergone a rigorous process of review by both other researchers at RAND and experts outside of RAND. The results of this specific modeling exercise have also been reviewed. The key assumptions and design choices that we modeled are described here.

Summary of Design Parameters and Assumptions

- We modeled the existence of three Exchange plans: Premium (actuarial value of 0.95), Enhanced (actuarial value of 0.85), and Basic (actuarial value of 0.70).
- The penalty in H.R. 3962 is set at 2.5% of adjusted gross income (AGI) minus the filing threshold. For 2008, the filing threshold was $8,950 for individuals and $17,900 for families. Thus, if an individual had an AGI of $35,000 and remained uninsured, the penalty would be 0.025*($35,000 – $8,950) = $651. Likewise, for an uninsured family with an AGI of $35,000, the total penalty for the family would be 0.025*($35,000 – $17,900) = $427. The penalty is capped at the cost of the average premium under the Basic plan offered through the Exchange. So, if an individual would expect to pay a premium of $6,000 in the Basic plan and has an AGI of $250,000, 0.025*($250,000 – $8,950) = $6,026 is higher than the Basic plan premium, so the penalty would be $6,000.
- We assume that the Exchange operates at a regional or national level, that administrative costs are reduced (due to, e.g., a standard benefit plan, Internet access to information and enrollment, reduced marketing), and that the market is robust to the introduction of very sick people who were not able to acquire insurance prior to the policy change. We assume that administrative costs are 12% of the premium, which is comparable to the administrative cost in the group market for medium-sized firms and less than the current nongroup market (estimated to be 35%). It is possible that the actual administrative cost would diminish even more over time as the Exchange becomes more efficient, but we did not model this scenario.
- Premiums in the Exchange may vary by age; the variation between the top and bottom age groups is restricted to 2:1 (the most expensive policy can be only twice the price of the least expensive policy). Variation by family

[2] The factors included in our utility maximization model include current insurance status, age, health status, income, employment status, and firm size (if employed).

composition and geography is allowed under rules set by the Health Choices Commissioner and state insurance commissioners. We assume that age groups are structured as follows: 0–17, 18–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, and 60–64. In order to simulate the 2:1 restriction, we took the national average schedule and "compressed" it to satisfy this constraint. It is not clear from the legislation whether the youngest age group (children) would be included in the 2:1 restriction, but our analysis was not sensitive to this choice.

- The traditional nongroup market moves to community rating and guaranteed issue. The move to community rating is simulated by assuming that, after the reform, the slope (but not the level) of the premium-age schedule follows the average schedule observed across the country.[3] The nongroup market has the same restrictions as the Exchange and, so, has the same 2:1 age banding. The move to guaranteed issue is simulated by removing the restriction that is used in the simulation of the status quo that certain people are denied access to nongroup insurance. The denial rate as a function of age was based on survey results (America's Health Insurance Plans, 2007).
- We modeled the structure of the affordability credits, or subsidies, exactly as prescribed by the legislation. People living in health insurance eligibility units (HIEUs, usually families) with at least one offer of employer-sponsored coverage or who are Medicaid-eligible were not allowed to receive subsidies. In the case of families that contain some members who are eligible for Medicaid and others who are ineligible, the non-Medicaid-eligible portion of the family receives subsidies if they qualify. We also assume that people can buy plans with higher actuarial values if they pay the difference in cost.
- We enacted a simple risk adjustment strategy under which payments are made across plans in the Exchange so that the ratio of the premiums is equal to the ratio of their actuarial values. In other words, the premiums only reflect the plans' generosity and not their risk composition. Because of limitations in the accuracy of the models used to determine the payments, we allow for a deviation of 5% from the target ratio.
- We followed the requirements in the legislation that the provisions take effect in 2013 after the Exchange is functional. We follow CBO in assuming that it takes three years for the legislation to become fully operational. We phase in the effects of the reform over three years so that it is fully implemented by 2015. We assume that the people who enroll initially are sicker on average than the general uninsured population.
- In order to quantify the benefit from reduced financial risk, we assign to each individual a disutility for risk that is proportional to the expected spread of the distribution of out-of-pocket expenditures: The higher the spread, the higher the probability that one incurs a catastrophic expenditure. The coefficient of proportionality is the so-called coefficient of risk aversion, which was assumed to be constant through the whole population.[4] In calculating the benefit of insurance, we used results from the RAND Health Insurance Experiment to quantify how much value, in dollars, people attribute to health care services (Manning et al., 1987).[5] Simply put, this value is about one-third of the expected total medical expenditures.

[3] The reason we rely on external data for the estimation of the dependency of premiums on age is that the sample of individuals in the nongroup market is small (on the order of several thousand), and the high variance of medical expenditures makes the calculations of the schedule very imprecise. In addition, it has been observed that, in the status quo, premiums do not increase proportionally with risk, so that a certain level of risk pooling is already present and cannot be inferred by simply looking at people's expenditures.

[4] To be precise, the disutility for risk was computed according the standard expression $\frac{1}{2} rV$, where r is the coefficient of risk aversion and V is the variance of the out-of-pocket expenditures. The value of the coefficient of risk aversion was 0.000464 in 2010 dollars. It was obtained by averaging the value of 0.00095 (in 2001 dollars) used by Pauly and Herring (2000) and the value 0.00021 (in 1995 dollars) used by Manning and Marquis (1996).

[5] We follow standard economics practice and estimate the value of health care services as the area under the demand curve for health insurance. We found that a good approximation for the value that an individual assigns to health care services received under a certain plan is one-third of the expected total medical expenditures under that plan. The factor one-third is more conservative than the value one-half used by Pauly, Herring, and Song (2002).

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