Issue Brief

The Effect of Health Savings Accounts on Health Insurance Coverage

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ABSTRACT: The authors investigate the potential of Health Savings Accounts (HSAs) to expand health insurance coverage. They examine how many currently uninsured people might be encouraged to buy coverage through HSAs, and what the impacts of such actions might be on the group and nongroup health insurance markets. Their main conclusions: HSAs are not likely to be an important contributor to expanding coverage among uninsured people because most of them do not face high-enough marginal tax rates to benefit substantially from the tax deductibility of HSA contributions. Meanwhile, HSAs could potentially destabilize the small-group market. To the extent that they encourage well-compensated healthy workers to abandon job-based coverage—a result that is more likely if current HSA provisions are combined with proposed premium deductibility—HSAs could undermine the entire structure of job-based coverage among small firms.

★   ★   ★   ★   ★

Overview

One of the principal ways in which the government affects the health care system is through tax policy. In 2003, for example, the favorable tax treatment of employer-based health insurance plans provided a $165 billion federal subsidy of the cost of such plans.[1] In much the same spirit, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 included new provisions granting heightened tax-favored treatment to Health Savings Accounts when enrollees also join a high-deductible health plan.

Health Savings Accounts, or HSAs, permit enrollees to save money, tax-free, that they can use to cover out-of-pocket expenses associated with health care. When used in combination with a high-deductible plan, HSAs, proponents argue, not only encourage responsible use of health care—by requiring beneficiaries to cover more of its up-front costs with their own savings—but offer a new and valuable health insurance option that will expand the number of Americans with coverage.[2] Advocates also say that patients will have greater choice among providers, thereby reducing the tendency of insurers and employers to limit such choices.

The authors of this analysis find, however, that HSAs are not likely to be an important contributor to expanding coverage among uninsured people.[3] That is because most of the uninsured do not face high-enough marginal tax rates to benefit substantially from the tax deductibility of HSA contributions. Meanwhile, HSAs could potentially destabilize the small-group market. To the extent that they encourage well-compensated healthy workers to abandon job-based coverage—a result that is more likely if current HSA provisions are combined with premium deductibility, which has been proposed by the Administration—HSAs could undermine the entire structure of job-based coverage among small firms.

Legislation, History, and Context

Under the HSA legislation, Americans who select a high-deductible health insurance plan (either through their employer or in the nongroup market) may establish, make contributions to, and make payments from a tax-free health savings account. The health insurance plan must include a deductible of at least $1,000 (but not more than $5,000) for an individual or at least $2,000 (but not more than $10,000) for a family. An eligible person, or his or her employer, may make contributions up to the value of the deductible (but not more than $2,600 for an individual or $5,100 for a family) to the account. The out-of-pocket maximum under the eligible high-deductible plans is capped at

$5,100 for an individual or $10,200 for a family (in 2005).

Contributions to HSAs may be made from pretax income, and withdrawals that are used to pay for medical expenses—such as deductibles, copayments, and over-the-counter drugs—are not taxable. Withdrawals used for other purposes are taxed and subject to an additional 10 percent penalty. The recent HSA legislation builds on, but differs from, several earlier health policy initiatives. One was a four-year demonstration program, launched by the federal government in 1996, that permitted self-employed individuals and small businesses to participate in tax-advantaged medical savings accounts. Very few firms, however, chose to participate in the program, perhaps because of its temporary status.[4] The new legislation, by contrast, is permanent, and it extends HSA eligibility to all individuals and firms.

In another initiative, the Treasury Department in 2002 authorized Health Reimbursement Arrangements, which allow employers to establish and contribute to accounts that their employees can then use to pay medical expenses. In addition to these benefits, the new HSAs permit employee contributions, and the accounts are portable from one employer to another.

Much earlier, in 1984, the government established the mechanism of flexible spending accounts (FSAs) under section 125 of the Internal Revenue Code. Unlike HSAs, FSAs have a "use it or lose it" provision—any unused balance remaining in an account at the end of the year is forfeited. Nevertheless, by 1999 between 15 and 28 percent of the workforce had some form of flexible spending account.[5] This suggests that about one-fifth of the workforce already has some tax subsidy for payment of coinsurance and deductibles, although this subsidy is much smaller and more uncertain than what is provided by HSAs.

The main subsidy in HSAs derives from the fact that their balances accumulate free of tax. In this respect, HSAs resemble other tax-preferred savings vehicles—particularly traditional and

Roth individual retirement accounts (IRAs). Contributions and accumulations under traditional IRAs, as in HSAs, are not subject to tax. But all withdrawals from traditional IRAs are taxable, while HSA withdrawals are not taxed if they are used for payment of medical expenses. Under Roth IRAs, accumulations and withdrawals are not subject to tax, but contributions must be made out of post-tax income. Thus, HSAs are a better way to save for medical expenditures than are either Roth or traditional IRAs. Furthermore, maximum contributions both to traditional and Roth IRAs are capped by income. When people choose to open an HSA in addition to their existing IRA, they can increase their level of tax-exempt saving. Analyses suggest, however, that the effects of such plans on savings are quite small.[6]

Will HSAs Help the Uninsured?

HSAs offer a new subsidy for health insurance coverage, which may encourage people who do not have health insurance coverage to purchase it. The subsidy may also encourage people who do have coverage to change its form, potentially producing repercussions throughout the health insurance market.

In the absence of HSAs, people could obtain premium savings by purchasing high-deductible plans; and they could achieve long-term investment savings by contributing to IRAs. In that scenario, however, they would have to pay all out-of-pocket expenditures using after-tax dollars. With HSAs, people can save the tax on the income used to pay the out-of-pocket expenditures associated with high-deductible plans. This implies that the usefulness of HSAs as a means of expanding coverage centrally depends on two features: the expected level of out-of-pocket expenditures under a high-deductible plan (because this determines the amount now exempt from tax), and marginal income-tax rates.

We estimated the magnitude of savings associated with HSAs by first estimating the out-of-pocket expenditures incurred by people with high-deductible health plans. We then calculated the taxes these indi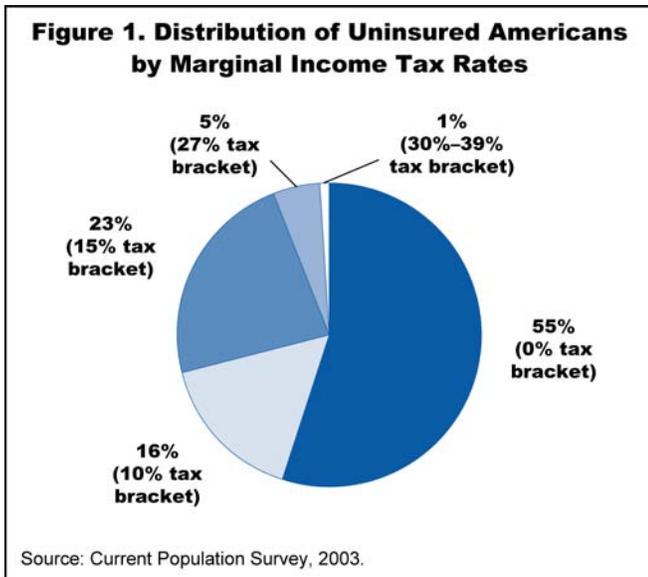viduals would have paid on the earnings used to pay these expenditures, assuming they did not have flexible spending accounts. (Note that this assumption that people do not have FSAs led us to overestimate the savings associated with HSAs.)

We used the Health Insurance Plan Abstraction file of the 1996–1998 Medical Expenditure Panel Survey (matched to the full-year demographic and spending files) to calculate the average out-of-pocket expenditures on hospitals, physicians, and prescribed treatments by individuals with high-deductible health plans. The weighted mean out-of-pocket expenditure for this group (including those who used no services) in 1996 was $237. Inflated to 2004 dollars (using the rate of growth of medical care costs reported in the National Health Accounts to 2002 and a 7.5 percent nominal inflation rate for 2003 and 2004), yielded an estimate of $386 per person.[7]

To estimate the tax savings associated with these out-of-pocket expenditures, we first determined the marginal tax rates faced by uninsured adults, based on the March 2003 Current Population Survey (Figure 1). More than one-half of uninsured adults currently have no income tax liability, which is the reason why most plans that incorporate tax deductibility as a subsidy would have little impact on coverage among the uninsured.[8]

In addition to these marginal income-tax rates, employees and employers each pay a tax of 7.65 percent for Social Security and Medicare benefits. Contributions made to HSAs through payroll deductions are not subject to that tax.

These tax rates and out-of-pocket spending estimates were then used to calculate the potential tax savings available through HSAs. The result is that people, on average, would save between $0 and $117 per year, depending on their tax bracket and whether the employee's and employer's shares of social-insurance tax rates are included (Tables 1 and 2). The lower the tax bracket, the lower the savings. (For a description of the procedure we used to calculate tax savings, see the Methodology box on page 7.)

Figure 1. Distribution of Uninsured Americans by Marginal Income Tax Rates

5%
(27% tax
bracket)

1%
(30%–39%
tax bracket)

23%
(15% tax
bracket)

55%
(0% tax
bracket)

16%
(10% tax
bracket)

Source: Current Population Survey, 2003.

of health insurance leads about 6 percent of the uninsured to take up coverage, a level of "respon-siveness" (or take-up rate) of 0.6.[10] However, this is likely too large a responsiveness estimate for an analysis of the take-up of HSAs. In previous research, the authors have shown that high-deductible coverage is likely to be much less valuable to unin-sured people than more generous standard coverage, so that the cost reductions associated with high de-ductibles would lead to a smaller take-up response.[11] Moreover, the requirement that people need to save to benefit from an HSA makes such a plan even less attractive than a simple high-deductible-plan tax credit would be. For these reasons, we assume a much lower response rate to HSA-induced reduc-tions in premiums, or a take-up rate of 0.1.

To estimate the tax savings as a share of the cost of insurance coverage, we calculated the ratio of these savings to the cost of a nongroup pre-mium. That cost, assuming a $1,000 deductible plan, averages about $2,000.[9] The savings associated with HSAs then ranged from 0 percent of premi-ums—for those low-income uninsured who can-not make HSA contributions through payroll deduction—to about 6 percent of premiums for middle-income uninsured people in higher tax brackets, who face both the employer and employee share of premiums (Tables 1 and 2).

How would people currently without health insurance coverage respond to such savings? How many would buy a high-deductible plan and open a health savings account? Similar analyses have assumed that every 10 percent decrease in the price

Our analysis shows that the HSA provisions alone are likely to increase the number of newly insured adults by fewer than 100,000, or about 0.3 percent of the current adult uninsured popula-tion (Table 3). Even under our most generous assumptions, the number of newly insured would be less than 2 percent of the number of currently uninsured adults. This number would be even lower if we took into account the fact that many people already have flexible spending arrange-ments available to them. The value of the subsidy offered by HSAs is smaller for such individuals—they can gain only the difference between the tax benefits of HSAs and FSAs.

The Bush Administration has proposed making HSAs more attractive by allowing people to deduct

Table 1. Tax Savings by Tax Bracket
Low-Income Uninsured (18.8 million)

Marginal Income Tax Bracket	Tax Savings	
	Dollar Amount	Percent of $2,000 Premium
0%[1]	$0	0%
7.65%[2]	$30	2%
15.3%[3]	$59	3%

[1] Assumes that HSA contributions are not made through payroll contributions; tax savings are from personal income taxes only.

[2] Assumes HSA contributions are made through payroll deductions and employees benefit from their share of Social Security and Medicare tax savings, in addition to personal income tax savings.

[3] Assumes HSA contributions are made through payroll deductions and employees benefit from both employer and employee shares of Social Security and Medicare tax savings, in addition to personal income tax savings.

Source: Current Population Survey, 2003.

Table 2. Tax Savings by Tax Bracket
Middle-Income Uninsured (15.2 million)

Marginal Income Tax Bracket	Tax Savings	
	Dollar Amount	Percent of $2,000 Premium
15%[1]	$58	3%
22.65%[2]	$87	4%
30.3%[3]	$117	6%

[1] Assumes that HSA contributions are not made through payroll deductions, tax savings are from personal income taxes only.

[2] Assumes HSA contributions are made through payroll deductions and employees benefit from their share of Social Security and Medicare tax savings, in addition to personal income tax savings.

[3] Assumes HSA contributions are made through payroll deductions and employees benefit from both employer and employee shares of Social Security and Medicare tax savings, in addition to personal income tax savings.

Source: Current Population Survey, 2003.

premiums for high-deductible plans from their taxable income. This provision, however, would have a similarly small effect on reducing the number of uninsured individuals because so many of those without coverage face very low marginal income-tax rates. Moreover, uninsured people purchasing HSAs in the nongroup market could not benefit from the HSA exemption from payroll and social security taxes.

How Will Health Savings Accounts Affect People with Health Insurance?

The Nongroup Market

Many people in the nongroup market are already purchasing plans with deductibles that would qualify for the HSA provisions; for this group, the new tax treatment provides a pure benefit that does not require a coverage change. Others who would have purchased individual coverage even without the subsidy will also benefit. Some, however, are likely to switch their current coverage to higher-deductible plans in order to qualify for the tax benefits.

Under current rules, HSA-qualifying plans are likely to be attractive to those at the extremes—to very healthy people (who can accumulate balances in their accounts) and to unhealthy people (who normally reach or exceed their out-of-pocket maximums and can now make these payments using tax-favored dollars). The effects of the HSA provisions will depend on the mix of these types who choose the plans. However, because so many purchasers in the nongroup market already purchase high-deductible plans, the HSA provisions are likely, on balance, to encourage unhealthy people to buy higher-deductible plans, thereby driving up the premiums of high-deductible plans in the nongroup market. If this happens, the HSA provisions might have the unexpected effect of shifting some healthier people in the nongroup market into lower-deductible

Table 3. Number of Newly Insured Through HSA Subsidies,
Under Different Estimates of Responsiveness

	High-Deductible Health Plan Responsiveness	Standard Policy Responsiveness
Low-Income Uninsured Adults (18.8 million)	28,000	169,000
Middle-Income Uninsured Adults (15.2 million)	66,000	401,000

Note: We assume that low-income uninsured adults face a marginal tax rate of 7.65% and middle-income uninsured adults face a marginal tax rate of 22.65% (see Figure 1 and Tables 1 and 2). We estimate that the tax savings for low-income uninsured people are equal to 1.5% of a high-deductible health insurance premium, while for middle-income uninsured people they are equal to 4.4% of a high-deductible health insurance premium (see Tables 1 and 2). We use a take-up rate estimate of 0.1 for the high-deductible responsiveness category, and an estimate of 0.6 for the standard responsiveness category.

Source: Current Population Survey, 2003.

plans, reducing the effects of adverse selection (disproportionate enrollments of people who require more expensive care) in this market.

The Group Market

The effects of HSAs are likely to be quite different in the group insurance market. Despite recent increases in deductibles, most people in the group market continue to have coverage with deductibles that are lower than required for HSA-eligibility.[12] In this market, then, HSA-eligible plans are likely to be most attractive to healthy, high income employees. This group will gain the most benefit from the tax provisions of HSAs, because they face high marginal tax rates, do save, and will be able to accumulate balances in their accounts over time.

Where employers offer multiple plans, a shift of healthy employees toward one type of plan can set off a spiral of premium escalation in other plans.[13] This set of events can leave people who prefer lower-deductible plans worse off. In its extreme manifestations, such spirals can lead to the disappearance of generous insurance plans, even if these plans had been operating efficiently.

Many firms, particularly small firms, offer only one plan. These firms, moreover, tend to be very sensitive to the preferences of their more highly compensated employees.[14] Thus, any shift of high-income workers toward HSAs is likely to lead to changes in the types of plans offered by these employers. A movement toward high-deductible plans as the sole type of plan offered in small firms would be harmful to many of their low-income workers, who derive little benefit from the HSA tax provisions and are unlikely to be able to save enough to cover their out-of-pocket expenses. They may drop coverage rather than contribute toward the premium cost of a plan that offers them little protection for out-of-pocket costs.

The problem created by changes in the preferences of highly compensated workers would be exacerbated by the extension of tax deductibility for the premiums of HSAs purchased outside the workplace. This policy would offer high-income workers a valuable option that might not be avail-able in the workplace at all. A resultant exodus of high-income workers from the job-based health insurance system would have disproportionately large effects on the stability of that system altogether.

NOTES

1   J. Sheils and R. Haught, "The Cost of Tax-Exempt Health Benefits in 2004," *Health Affairs* Web Exclusive (February 25, 2004): W4-106–W4-112.

2   J. C. Goodman and G. L. Musgrave, *Patient Power: The Free-Enterprise Alternative to Clinton's Health Plan* (Washington, D.C.: Cato Institute, 1994).

3   There is a considerable literature evaluating the possible benefits and costs of medical savings accounts' various configurations. See, for example: American Academy of Actuaries, *Medical Savings Accounts: Cost Implications and Design Issues*, AAA Report (May 1995); Congressional Budget Office, *The High-Deductible/MSA Option Under Medicare: Exploring the Implications of the Balanced Budget Act of 1995*, (Washington, D.C.: CBO, 1996); E. B. Keeler, J. D. Malkin, D. P. Goldman et al., "Can Medical Savings Accounts for the Nonelderly Reduce Health Care Costs?" *Journal of the American Medical Association* 275 (1996): 1666–71; M. Moon, L. M. Nichols, and S. Wall, "Medical Savings Accounts: A Policy Analysis." The Urban Institute Research Paper (1996); L. M. Nichols, M. Moon, and S. Wall. *Tax-Preferred Medical Savings Accounts and Catastrophic Health Insurance Plans: A Numerical Analysis of Winners and Losers*, Urban Institute Research Report 406690 (1996); L. Ozanne, "How Will Medical Savings Accounts Affect Medical Spending?" *Inquiry* 33 (1996): 225–36; D. Zabinski, T. M. Selden, J. F. Moeller et al., "Medical Savings Accounts: Microsimulation Results from a Model with Adverse Selection," *Journal of Health Economics* 18 (1999): 195–218; and D. P. Goldman, J. L. Buchanan, and E. B. Keeler, "Simulating the Impact of Medical Savings Accounts on Small Business," *Health Services Research* 35 (2000): 53–75.

4   See U.S. Government Accounting Office, *Medical Savings Accounts: Results From Surveys of Insurers*, GAO/HEHS-99-34 (1999).

5   Calculated using the U.S. Bureau of Labor Statistics' Employee Benefit Survey calculator, accessed at http://data.bls.gov/PDQ/outside.jsp?survey=eb. Data are from series EBUREIMBINC000AP and EBUSEC125INC00AP, describing reimbursement accounts and Section 125 cafeteria plans in private industry.

6   See P. Fronstin, "Health Care Expenses in Retirement and the Use of Health Savings Accounts," EBRI Issue Brief #271 (July 2004); and O. P. Attanasio and T. DeLeire, "The Effect of Individual Retirement Accounts on Household Consumption and National Saving," *The Economic Journal* 112 (2002): 504–38.

[7] This figure is somewhat lower than that of Gabel et al. (2002)—who estimated $564 among *individual* service users who had nongroup plans with in-network deductibles of $1,550—and somewhat high relative to estimates of how much uninsured *families* currently spend out-of-pocket ($436) or are predicted to spend under nongroup coverage ($812). See J. D. Reschovsky and J. Hadley, "The Effect of Tax Credits for Nongroup Insurance on Health Spending by the Uninsured," *Health Affairs* Web Exclusive (February 25, 2004): W4-113–W4-127.

[8] Note that we do not account for the earned income tax credit in these estimates. Few EITC recipients are likely to save under HSA provisions.

[9] See J. Gabel, K. Dhont, H. Whitmore et al., "Individual Insurance: How Much Financial Protection Does It Provide?" *Health Affairs* Web Exclusive (April 17, 2002): W172–W181.

[10] J. Gruber, *Tax Subsidies for Health Insurance: Evaluating the Costs and Benefits.* NBER #W7553 (Cambridge, Mass.: National Bureau of Economic Research, 2000); and S. Glied,

D. Remler, and J. G. Zivin, "Inside the Sausage Factory: Improving Estimates of the Effects of Health Insurance Expansion Proposals," *Milbank Quarterly* 80 (December 2002): 603–35.

[11] S. Glied, "Is Something Better than Nothing? Health Insurance Expansions and the Content of Coverage," in D. M. Cutler and A. M. Garber (eds.), *Frontiers in Health Policy Research*, vol. 6 (Cambridge, Mass.: MIT Press, 2003), 55–86.

[12] Health Research and Educational Trust, *Employer Health Benefits 2004 Annual Survey*. Section 7: Employee Cost-Sharing (2004). Available at http://www.kff.org/insurance/7148/sections/index.cfm, accessed March 15, 2005.

[13] D. Cutler and R. Zeckhauser. "Adverse Selection in Health Insurance," in A. Garber (ed.), *Frontiers in Health Policy Research*, vol. 1 (Cambridge, Mass.: MIT Press, 1998), 1–31.

[14] J. Gruber and M. Lettau, *How Elastic is the Firm's Demand for Health Insurance?* NBER #8021 (Cambridge, Mass.: National Bureau of Economic Research, 2000).

METHODOLOGY

The researchers considered three different scenarios for estimating the tax savings associated with HSAs:

1. The baseline analysis assumed that all HSA contributions would be made through payroll deductions so that participating workers could avoid paying the employee share of Social Security and Medicare taxes—7.65 percent. In addition, employers, not individual employees, were assumed to benefit from the savings associated with sheltering the *employer* share of Social Security and Medicare taxes through payroll deductions.

2. The researchers examined what would happen if HSA contributions were not made by payroll deduction, and assigned workers no savings associated with Social Security and Medicare taxes.

3. The researchers assigned workers the full employer-plus-employee tax rate of 15.3 percent as the social insurance tax. This scenario reflects a common assumption in economics about the long-run impact of these taxes.

Summing the marginal income tax and social insurance tax rates yields a total marginal tax rate on earnings. For those in a zero-percent marginal income tax bracket, the total tax rate on earnings would be 7.65 percent in the baseline scenario, 0 percent in the second scenario, and 15.3 percent in the third (where HSA contributions are made through payroll and employees ultimately benefit from tax savings associated with both the employee and employer share of social insurance taxes).

About 45 percent of uninsured adults face a marginal income-tax rate greater than 0 percent. Assuming the average tax rate of 15 percent, their total tax savings would be 22.65 percent in the baseline scenario, 15 percent in the second scenario, and 30.3 percent in the third.

For the main analysis, the authors used a take-up rate of 0.1. They began with a rate of 0.6, consistent with a price elasticity (standard responsiveness parameter) of about 0.4 applied to people who do not currently have public coverage. The authors reduced this take-up rate to reflect the difference between the generosity of standard employer-sponsored coverage and high-deductible coverage and to reflect the requirement that HSA savings can only be achieved if people save money in their accounts.

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