The US health care system had undergone a remarkable transformation over the past eight years. The uninsured rate in the non-elderly population, which had peaked at 18.2% in 2010, fell nearly in half, to 10.4% in 2016, a rate lower than ever previously recorded\(^1\). Over the same period, the rate of growth of per capita health care costs in the US was much lower than over any comparable period since 1960\(^2\). According to data collected by the National Center for Health Statistics (NCHS), the share of Americans in families that reported having problems paying medical bills fell steadily from 2011 to 2016\(^3\), and that decline has been associated with a decline in the number of health-care related personal bankruptcies\(^4\) and with declines in hospital uncompensated care costs\(^5\).

These developments mean that Americans, as a whole, are in a much better situation with respect to healthcare costs, access, and financial protection than they were a decade ago. But problems certainly remain. One of the most important is that some people, despite holding health insurance coverage, cannot afford care when they need it. Deductibles, coinsurance rates, and exposure to out-of-pocket medical expenses have been rising rapidly. While high deductible health plans have always been quite common among those purchasing insurance in the non-group market, today, according to the NCHS, nearly half of those with employer-sponsored health insurance are in high deductible health plans (those with deductibles over $1300 for an individual or $2600 for a family). For many families, these deductibles are very large relative to income and savings. As a consequence, many Americans who hold insurance coverage are effectively underinsured\(^6\). They do not have the savings available to pay costs below those deductible and out-of-pocket maximum levels. The Commonwealth Fund’s surveys show that only about half of Americans with incomes below 250% FPL report that they

---

\(^1\) https://www.kff.org/uninsured/slide/uninsured-rate-among-the-nonelderly-population-1972-2017/


are confident they could pay for care if they became sick. Similarly, according to the Federal Reserve Board’s 2016 Survey of Household Economics and Decisionmaking, about 35% of American adults do not have enough income and savings to make all their other bill payments if they were unexpectedly faced with a $400 emergency.

This context – one of unprecedented improvements in coverage, access, and cost-containment, but continuing problems in affordability – informs new interest in the potential role of consumer-directed health plans in the US health system. As policymakers once again consider these plans, there has been an explosion of new research in health care economics, facilitated by improved access to data on health insurance claims. This new research offers very valuable insight into whether and how consumer-directed plans can fill the gaps in coverage, access, and financial protection that remain.

Consumer-directed health plans (CDHPs) were greeted with great optimism by many health policy experts when they were first introduced. My review of these plans and of the research literature since their introduction, however, suggests that this model has not lived up to these early expectations. CDHPs have not, and are not likely to, lead to more than marginal increases in the number of people who have insurance coverage. The financial benefits of tax incentives for CDHPs have largely accrued to higher income households that already held health insurance and that already had the wherewithal to pay their out-of-pocket health care expenses. Finally, CDHPs have not been an effective strategy to rationalize the consumption of health care and to reduce inefficient spending. Expanding the scope and reach of CDHP is unlikely to make any significant dent in the cost, access, and affordability problems that currently face our healthcare system.

Consumer-Directed Health Plans

Consumer-directed health plans (CDHPs) have been encouraged in the USA since 1996, through a series of temporary tax incentives. The 2003 Medicare Prescription Drug, Improvement and Modernization Act provided a permanent tax incentive for the establishment of Health Savings Accounts (HSAs) coupled with qualified high deductible health plans (HDHPs). The combination of HSAs and HDHPs is what is generally meant by CDHPs. The promotion of CDHPs was a policy response to an economic concern that generous health insurance provides an incentive for the over-use of and lack of price shopping for health services. By extending the tax incentives that exist for health insurance premiums to out-of-pocket payments,

---

policymakers hoped to encourage people to buy higher deductible health insurance policy and thus, neutralize some of the distortionary effects of health insurance coverage.

In principle, CDHPs should promote insurance coverage (through the additional tax incentive they provide), offer financial protection (through the accumulation of assets in the plans), and control costs (by encouraging consumers to shop in a cost-conscious way). In practice, however, CDHPs have fallen short of these goals.

Promoting Insurance Coverage

The favorable tax benefits offered through HSAs provides a new subsidy for health insurance coverage, which may encourage people who do not have health insurance coverage to purchase it. This effect, however, is rather small. The usefulness of HSAs as a means of expanding coverage depends on two factors: 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. Both factors work against HSAs having a substantial impact on coverage. First, because health expenditures are highly skewed, most people spend very little on care each year, while a very small number of people each year account for most health expenditures. Because of this, the average amount a person might expect to spend under a high-deductible plan is quite low.

Second, most people without insurance coverage, even today after the ACA expansions, have low incomes and face low or zero marginal tax rates. Together, these two factors mean that the tax incentives for HSAs, even if further expanded, would induce very little increase in insurance coverage. The benefits of HSAs accrue almost entirely to those with higher marginal tax rates who already have insurance. That is, the over $2 billion annual tax expenditures currently associated with HSAs do not induce additional coverage; instead, they largely crowd-out existing private spending.

Improving Financial Protection

The CDHP model makes most sense when funds to pay for medical expenses under the HDHP are readily available within the HSA. Unfortunately, many people with HDHPs today do not have HSAs. Even where HSAs do exist, they are typically under-funded. This is not

---


surprising -- other, similar, tax-favored savings vehicles, such as retirement accounts, are similarly underfunded, except among the highest income beneficiaries\textsuperscript{11}.

HSA contributions may be made by employees, employers or both. In calendar year 2017, just under half of employers who offered HSAs made no contribution at all to their employees’ savings plans\textsuperscript{12}. Employer contributions to HSAs, among those making contributions, averaged $795 for single coverage and $1416 for family coverage in 2016. Very few workers – just 2% -- enrolled in a Health Savings Account (HSA)-qualified HDHP received an account contribution for single coverage at least equal to their deductible in 2017\textsuperscript{13}. High-income and older tax filers are both much more likely to establish HSAs and to fully fund their HSAs; one recent study found that they did so at least four times as often as did low-income and younger filers\textsuperscript{14}.

Annual contributions by employers and employees account for virtually all of the value of HSAs. Most holders do not treat their HSAs as investment funds. Rather, they use them as an extra checking account to pay medical bills. According to research from EBRI, in 2016, just 4 percent of accounts had investments other than cash\textsuperscript{15}.

These patterns of underfunding and limited use as investment vehicles help explain why the use of HSAs has such an anemic effect on care affordability. As Table 1 shows, people with HDHPs report more trouble paying medical bills than do those with traditional insurance. About 15% of adults 18-64 with private insurance who have HDHPs report difficulty paying medical bills, compared to just under 10% of those with traditional plans. That is to be expected – high deductibles increase financial exposure. What is more surprising is that the addition of an HSA does so little to mitigate this problem. Among those with incomes between 100-400% FPL, there is no difference at all in difficulty paying medical bills between those with an HDHP without an HSA and those who have an HSA. Among those with incomes above 400%FPL, about 11% of those with an HDHP and no HSA report difficulty paying medical bills, while about 8% of those with an HSA report such difficulties. While this is an improvement, even the latter figure is more than 50% higher than the rate among those with traditional insurance.


Table 1: Percentage Reporting Difficulty in Paying Medical Bills, Among those 18-64 with Private Insurance

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;100% FPL</th>
<th>100-&lt;400% FPL</th>
<th>&gt;400% FPL</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Plan</td>
<td>9.6%</td>
<td>11.7%</td>
<td>16.9%</td>
<td>5.2%</td>
<td>62,713,472</td>
</tr>
<tr>
<td>High Deductible Plan</td>
<td>15.2%</td>
<td>21.1%</td>
<td>25.4%</td>
<td>9.5%</td>
<td>42,628,838</td>
</tr>
<tr>
<td>No HSA</td>
<td>16.8%</td>
<td>21.6%</td>
<td>25.3%</td>
<td>10.8%</td>
<td>25,042,184</td>
</tr>
<tr>
<td>With HSA</td>
<td>12.8%</td>
<td>18.9%</td>
<td>25.8%</td>
<td>8.0%</td>
<td>15,092,756</td>
</tr>
</tbody>
</table>

Author’s tabulations of the 2016 National Health Interview Survey.

Controlling Costs

A principle goal of CDHP is to improve the efficiency of how people use the health care system, and thereby to control costs. Economic research, however, suggests three main problems that impede the ability of CDHPs to achieve this goal: lower marginal costs than traditional plans for people with low health spending, inefficient service utilization decisions, and weak shopping behavior.

CDHPs are intended to reduce excess spending by requiring consumers to face more of the costs of their own health care decisions (skin in the game). In practice, however, the price (net of taxes) of medical care facing consumers is not always higher and may often be lower under an HSA compared with other types of insurance. People who expect to have low health care spending are likely to see their after-tax out of pocket costs fall when they switch to an HSA, because their out-of-pocket costs will now be paid for out of tax-favored savings. The offsetting effects of the after-tax price reductions from HSAs on the utilization-reduction incentives of HDHPs may explain why some long-term studies of CDHPs find relatively modest, or even non-existent, savings effects. For example, Chen, Feldman, and Parente, long-time advocates of CDHPs, followed a sample of very large firms that had implemented these plans over a period of five years (2005-2009). They find that members enrolled in HSAs had comparable levels of spending compared to those in traditional plans, and those enrolled in related Health Reimbursement Accounts actually spent more than those enrolled in traditional accounts over time.

---

The effect of this new, lower marginal price will be most acute for services that are not typically paid for through private insurance, but that are eligible for payment under HSA plan. For example, while relatively few private health insurance plans cover prescription sunglasses, these expenses may be paid using tax-favored dollars in an HSA. To the extent that HSA funds are used to pay for expenses that are not typically covered under health insurance, they both crowd out existing private out-of-pocket spending and reduce, rather than increase, efficiency across the health system. It is far from clear that it is economically desirable to devote valuable tax expenditures toward encouraging excess spending on discretionary health care services.

A second challenge for improving efficiency through CDHPs is that people are not well-informed about how best to use medical services or have limited understanding of their plans. Higher deductibles do often lead to lower rates of use of care, but these differences in rates of use are similar for valuable care and for care that is less valuable. This pattern has been observed in multiple studies dating back to the RAND Health Insurance Experiment of the late 1970s. Similarly, a comparison of practices among patients with chronic conditions found that those in a CDHP were less likely to adhere to treatment. For patients with hypertension, dyslipidemia, diabetes, and diabetes, enrollment in a CDHP reduced use of medications. The overall effect of a high deductible appears to outweigh targeted exemptions aimed at encouraging effective utilization. For example, a recent study found that consumers enrolled in high deductible plans reduced the use of preventive services, even though these services are fully covered under such plans.

The final problem with improving efficiency through CDHPs is that these plans appear to operate almost entirely by affecting rates of utilization, but a growing volume of research indicates that the problems of the US health care system today stem from high prices, not high utilization. In its recent assessment of health care spending, the Health Care Cost Institute noted that health care utilization among those with private health insurance has been declining in recent years – instead, growth in spending has been driven by higher prices.

Many had hoped that the introduction of CDHPs, often coupled with tools to make prices more transparent to policyholders, would encourage price shopping. With a very few

notable exceptions (switching from brand name to generic drugs and use of lower cost providers for laboratory tests), there is simply no evidence to support this hope. Recent studies indicate that “Members of HDHP and traditional plans are equally likely to price shop for medical care, and they hold similar attitudes about health care prices and quality.” The study that found modest evidence of price shopping for laboratory tests (suggesting that consumers were aware of and able to navigate the shopping tool) did not detect any evidence of price shopping for office visits. A careful study of the two-year experience of employees of a very large firm that switched to a high deductible plan likewise found no evidence that consumers learned to price shop. The only studies that find robust evidence of price-shopping by beneficiaries are those in which traditional managed care plans use highly-structured pricing arrangements, such as reference pricing, to direct patients to lower cost providers for a very narrow set of conditions. Despite substantial investments in proprietary, commercial, and public transparency tools, there is no evidence that consumers in more loosely structured arrangements such as HDHPs engage in price shopping behavior. Most health care markets are highly concentrated and offer complex products. Most health spending occurs among patients who are very ill and not in a good position to compare costs and quality. The potential for consumers to control prices through shopping is necessarily limited.

Policy Implications

The affordability problems affecting the US health care system today stem from two sources. First, many Americans cannot afford the high deductibles they face in their health insurance plans. Second, the prices of many services within the system are excessively high.

CDHPs offer their greatest value to the highest income taxpayers who face the highest marginal tax rates and have the most discretionary savings available. For these taxpayers, HSAs offer very valuable tax benefits. They also likely reduce the cost of many discretionary services that are not typically covered under health insurance. But high income taxpayers in high tax brackets are not the ones facing an affordability problem. For less affluent consumers, CDHPs have not substantially reduced the burden of out-of-pocket costs to date. Given the low level of savings among less affluent Americans, it seems very unlikely that CDHPs will be an affordability solution for this group into the future. Policymakers should look to other solutions.

---

to improve financial protections from health care costs for middle income Americans. For example, limiting cost-sharing to levels that are proportional to income, as the Affordable Care Act already does for low income Americans, would be a more effective strategy for addressing the underinsurance problem among middle income Americans.

CDHPs offer even fewer benefits with respect to cost containment and increasing health system efficiency. Well-designed CDHPs can reduce utilization. To date, those reductions in utilization have not focused on the least effective care, but perhaps plans could be further modified to improve access to appropriate services. However, the most important source of high costs in the US health care system today is high prices – not high utilization. High prices, in turn, are to some extent a consequence of increasingly concentrated health care markets, especially for specialized and costly services. While HDHPs reduce utilization, there is no evidence whatsoever that they have been or can be effective in reducing the price of most services. CDHPs will not promote affordability through reducing the overall costs of our healthcare system. Instead, Congress should evaluate new strategies, for example, options that encourage the development of network-based health plans (which can negotiate lower prices through the promise of membership in a network); competitive bidding to enhance price competition in selected sectors; and even increased regulation of prices in highly concentrated markets as alternatives to bring down the prices of health care and enhance affordability for all Americans.