

COMMONWEALTH OF MASSACHUSETTS
HEALTH POLICY COMMISSION



**A REPORT ON CONSUMER-DRIVEN HEALTH PLANS:
A REVIEW OF THE NATIONAL AND MASSACHUSETTS
LITERATURE**

**REPORT TO THE MASSACHUSETTS LEGISLATURE
ISSUED APRIL 2013**

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Executive Summary

As stipulated in Section 263 of Chapter 224 of the Acts of 2012, An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency, and Innovation, the Health Policy Commission is required to prepare a report and recommendations on flexible spending accounts, health reimbursement arrangements, health savings accounts, and similar tax-favored health plans. The Commission has decided to examine the topic in multiple steps. This first report provides a review of the literature and data available regarding such plans and their impact on medical spending, quality, and consumer welfare.

This report focuses on consumer-driven health plans (“CDHP”)—specifically plans with a high-deductible component and a savings option component. The core strategy of these plans is to provide added financial incentives for consumers to be more active value purchasers in two ways: through provider-switching to lower price providers and through decreased utilization of unnecessary services. The current literature tends to focus on consumer behavior within such tax-favored plans. Studies indicate that there appears to be some reduction in the use of medical services by participants of CDHPs, but it is not yet clear what impact such reductions have on longer-term health outcomes or on total medical spending. Furthermore, the role and impact of these plans on the behavior of other players such as intermediaries and provider organizations is not well understood at this time.

In conclusion, the Commission identifies three areas for future research: (1) understanding the Massachusetts landscape for the current and future use of CDHPs; (2) comprehending the dynamics of intermediaries (employers, payers and brokers) that are influencing the take-up of CDHPs; and (3) gaining knowledge of provider organizations’ considerations that are affecting consumers’ decisions to switch providers based on price. Further information and data along these lines will help the Commission understand either how to shape these products in a way that fulfills their promise, without negative health consequences for consumers, or whether other health insurance plan designs, such as limited/tiered network plans, seem to be better options for the Massachusetts marketplace.

1 Introduction

Section 263 of Chapter 224 of the Acts of 2012 states:

Notwithstanding any general or special law to the contrary, the Health Policy Commission shall investigate and review methods of, and make recommendations relative to, increasing the use and adoption of flexible spending accounts, health reimbursement arrangements, health savings accounts and similar tax-favored health plans and developing and implementing incentives to increase the utilization of these types of plans. The Health Policy Commission shall examine the feasibility of such accounts and plans for public payers and commercial insurers and the feasibility of a pilot program. The Health Policy Commission shall submit a report of its findings and recommendations to the clerks of the House of Representatives and the Senate, the House and Senate Committees on Ways and Means and the Joint Committee on Health Care Financing not later than April 1, 2013.¹

A comprehensive review of all health plans with tax-favored savings options—accounts or arrangements that can be funded on a pre-tax basis to increase their use—presents many challenges because there is great variability in how these insurance products are constructed. Given that limitation, this report focuses on consumer-driven health plans (“CDHPs”), described in-depth in the next section. A review of the current literature about various forms of CDHPs and their impacts on care and medical spending provides some Massachusetts-specific insights, but not enough to make strong policy recommendations at this time. Also, much of what has been published mixes together discussions of high-deductible health plans (“HDHPs”) and CDHPs, only the latter of which the Commission is tasked with reviewing. This report will: (1) outline the current data and literature available on CDHPs, and (2) identify future areas for research about CDHPs necessary for Massachusetts-specific policy recommendations. To accomplish this, the Commission conducted a comprehensive review of the current literature, reviewed surveys, and interviewed academic experts and industry experts to better understand CDHPs.

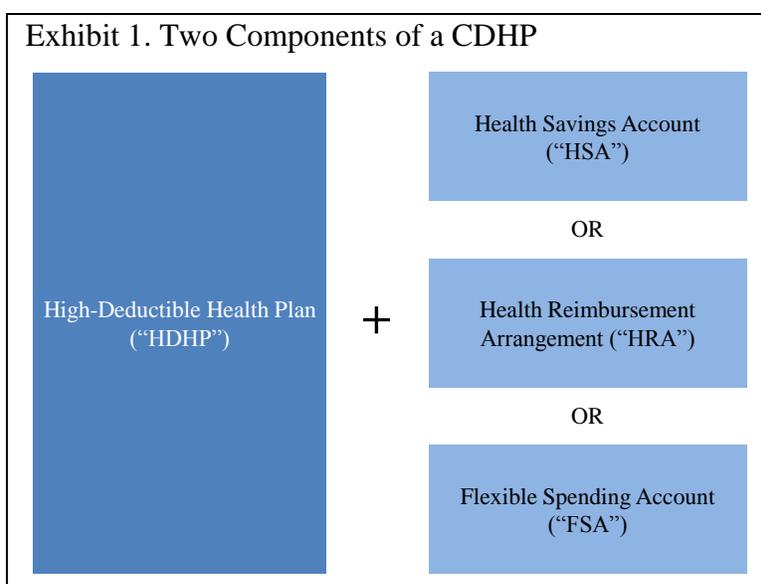
2 Definition of a CDHP

Summary: *Consumer-driven health plans are a combination of a high-deductible health plan with a tax-favored savings option. The three most common types of savings options include health savings accounts, health reimbursement arrangements, and flexible spending accounts. The basic theory of a consumer-driven health plan is that when consumers have more of their own money at stake at the time they are seeking care, they will have the incentive to switch to lower price providers and decrease utilization of services.*

A HDHP is a health plan with a lower premium due to a higher deductible, with definitions varying but normally set to a threshold of \$1,000. These plans are frequently referred to as “catastrophic health plans” since coverage typically will not be available until a significant, expensive medical event occurs. Generally, a CDHP is a plan with a HDHP base with a savings option (“SO”) component that provides a tax-favored method for the consumer to cover medical costs prior to meeting the deductible. Normally, three types of SOs are paired with CDHPs:

Health Savings Accounts (“HSAs”); Health Reimbursement Arrangements (“HRAs”); and Flexible Spending Accounts (“FSAs”). Detailed explanations of each option are below. The tax-favored status of the SO is considered important in order to make them comparable to low-deductible options for which the premium, generally the largest cost, is tax-favored.

The premise behind CDHPs is to encourage consumer behavior to contain medical spending growth.^{2,3,4} If consumers are more engaged in the financial aspects of their health care—through vehicles such as co-payments, coinsurance, and deductibles—consumers will make decisions based on value, which is a balance of price and quality. The idea is that when quality is equivalent between two providers, and assuming the availability of comparative information, consumers will pursue the lower-priced option, thereby compelling the higher-priced provider either to lower its prices or increase its quality in order to remain competitive. This interplay can differ among the various SO types because each provides different value to individuals, employees, and employers.



2.1 Health Savings Account

Federal policy over the past decade has promoted CDHPs by providing tax-favored status for SOs. The HSA was created in the Medicare Prescription Drug Improvement and Modernization Act (“MMA”) of 2003. This law reshaped the Medical Savings Account (“MSA”)—first introduced in Missouri in 1993, and then piloted at the federal level by Congress in 1996—as a HSA. Under federal law—standards matched in Massachusetts’ minimum creditable coverage requirements—to be HSA-qualified in 2013, a HDHP must have a deductible of at least \$1,250 for an individual and \$2,500 for a family, where only preventive services are not subject to the deductible.^{5,6} All other services must be subject to the deductible.

Plans with high-deductibles are fairly prevalent in Massachusetts. In 2012, 55 percent of plans selected in Massachusetts’ merged market—defined as non-group and small groups with less than 50 employees—had deductibles of over \$1,000 for single coverage and \$2,000 for family coverage.⁷ However, only a small proportion of these plans are HSA-compatible. In the majority of health plans offered and sold in Massachusetts, plan designs do not subject certain

services to the deductible, such as prescription drugs, therefore disqualifying them for HSA qualification.

Funding for HSAs is deposited on a pre-tax basis, and thus approved expenditures from the account receive a tax advantage. In 2013, the contribution limit is \$3,250 for individuals and \$6,450 for families.⁸ Payments to HSAs can come from the employee, the employer, or both. The money in these accounts can only be used for medical expenses that qualify for payment under the deductible. The accounts can be rolled over from year to year without tax penalties, and any funds spent from them on medical expenses are not taxed. If money is withdrawn for non-medical expenses, the amount withdrawn is subject to income tax and, effective with the Affordable Care Act (“ACA”), an additional 20 percent penalty is applied. A penalty does not apply, however, if the money is withdrawn after age 65 or by a person who is disabled; accordingly, HSAs function like Individual Retirement Accounts (“IRAs”). In fact, part of the marketing of HSAs is tied to their tax-free growth, which can be used for any purpose in retirement.

2.2 Health Reimbursement Arrangement

A second type of SO is the HRA. In 2002, the IRS issued guidance to help clarify the definition of what constitutes a HRA.⁹ This type of account need not be paired with a HDHP, but often is. Unlike HSAs, funding for these accounts is provided by the employer only. There is no limit to how much employers can put into these funds for employees, although most set annual limits. Unlike HSAs, which have strict rules under federal tax law about what medical expenses the money can be used for, the spending requirements of the HRAs are defined by the employer, and thus vary from company to company. Typically, an employer allows for usage of these monies towards premiums, coinsurance, copayments, and IRS-recognized non-plan-covered expenses. Tied to this structural design, employers do not need to prefund these accounts and can instead make contributions to them as their employees incur covered health expenses. Additionally, unspent monies in HRAs can be carried over from year to year, but only at the employer's discretion.

2.3 Flexible Spending Account

The last major type of SO is the FSA. When an employer offers an FSA, before the beginning of a plan year, employees estimate how much they expect to spend on health care services that will not be reimbursed by their health plan. Employers then withdraw this amount pre-tax from the employee's wages and salary and place it in the FSA. Over the course of the year, employees submit receipts or use a FSA debit card for health care services to be reimbursed from the account. Unlike HSAs and HRAs, which may rollover, any funds remaining in the account at the end of the coverage year are forfeited.

The ACA sets the annual maximum for FSAs to \$2,500. Because there are fewer restrictions on qualifying to open a FSA, these SOs may be paired with insurance arrangements that do not necessarily involve high deductibles. For the sake of consistency, this report will focus on FSAs associated with HDHPs, to meet the definition of CDHPs laid out in this report.

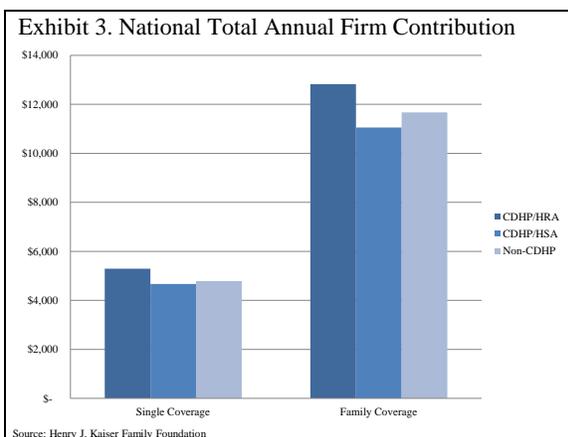
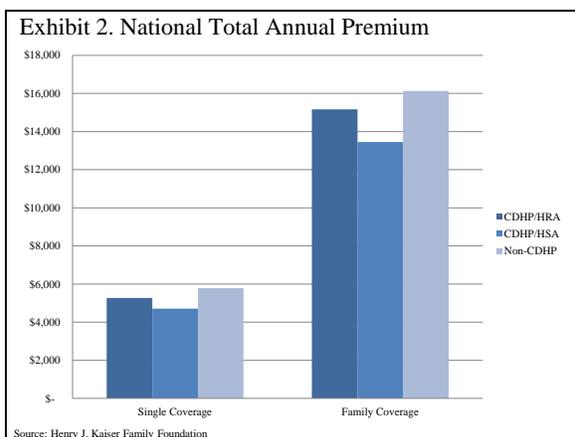
3 National and Massachusetts Take-up of CDHPs

Summary: National take-up of CDHPs has been growing steadily, with 13.5 million people (7.8 percent of the commercial enrollment) in 2012 covered in CDHP/HSA plans, one type of CDHP.

This increase is significant over the past seven years since introduction, yet not at the levels some studies predicted. Take-up in Massachusetts is at a lower rate, with only 3.0 percent of commercial enrollment in CDHP/HSA plans, the sixth lowest in the US. Certain demographic groups, such as younger and high-wage workers, are more likely to select CDHPs.

3.1 Penetration and Cost of CDHPs

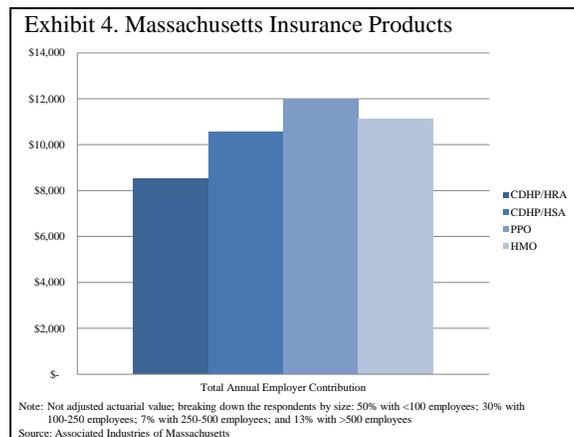
According to the Kaiser Family Foundation’s 2012 Employee Health Benefits Survey, 31 percent of firms nationally offered health benefits that provided a CDHP with either an HRA or HSA, with 19 percent of covered workers enrolled in these types of plans. For firms offering these plans, while the annual premium is lower, the average per person total annual firm contribution is actually higher for a CDHP/HRA than for non-CDHP plans (see Exhibit 2). For a CDHP/HSA, the annual premium and firm contribution is lower than non-CDHP plans. This occurs for two reasons. First, plans with a high-deductible have a lower premium. Additionally, since employees are also able to pay directly into HSAs, the total funding burden can be shifted away from the employer, reducing the firm’s total contribution, while also reducing the premium for the employee (see Exhibit 3). The survey also found that covered employees in small firms (3-199 workers) are more likely to be enrolled in CDHPs with HSAs or HRAs (24 percent) than large firms (19 percent). This survey does not provide Massachusetts-specific results or information about CDHP/FSA plans.



A second review of CDHP take-up is provided by the America’s Health Insurance Plans (“AHIP”). In their January 2012 Census, AHIP reports 13.5 million people covered by CDHP/HSAs, or 7.8 percent of commercial enrollment. The report did not include data about CDHP/HRAs or CDHP/FSAs. Of the 13.5 million covered lives in CDHP/HSAs in 2012, 18 percent were in individual health plans, with the remaining 82 percent in small and large group plans. Looking at Massachusetts data, the AHIP report found that 127,115 people are covered by CDHP/HSAs, or about 3.0 percent of commercial enrollment. This is the sixth lowest proportion in the US.¹⁰

A third review, which is Massachusetts-specific, is provided by the Associated Industries of Massachusetts (“AIM”). In 2012, AIM conducted a survey of 236 employers across the Commonwealth (see Exhibit 4).¹¹ The AIM survey found that 8 percent of companies offered a CDHP/HSA, and 14 percent offered a CDHP/HRA. Since the premium data collected by AIM is not adjusted for actuarial value (i.e. adjusted for the richness of benefits in different plan

designs), comparisons made across products are not as meaningful. The average annual contribution for an employer for a family plan is \$8,532 for a CDHP/HSA, and \$10,536 for a CDHP/HRA, compared to \$11,964 for a PPO and \$11,124 for a HMO. In terms of the overall proportion of contributions made towards the total premium and savings option by the employer, the CDHP/HSA is the lowest among all plan options at 63 percent, and the CDHP/HRA is the highest at 70 percent. The data does not provide any insight about the use of FSAs in Massachusetts, whether with or without a HDHP.



3.2 Demographic Characteristics of CDHP Enrollees

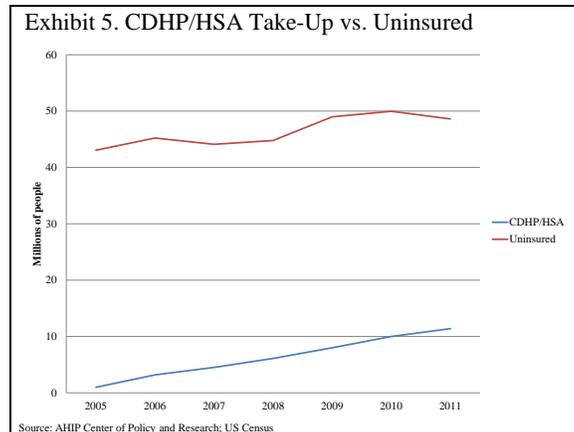
It is important to consider the demographics of individuals who enroll in CDHPs. None of the surveys above provide sufficiently detailed demographic information to discern the profile of plan enrollees. From a review of the literature, one study showed comparatively that HRA enrollees were younger, higher-wage, more likely to be white, and more likely to be salaried as compared to those in non-CDHP/HRAs. The study also found that at baseline, individuals in the bottom quartile of medical spending were more likely to switch to CDHPs, as were individuals with no chronic health conditions.¹² Hamilton et al. observed that non-whites are less likely to choose to participate in FSAs.¹³ Some studies report that higher-income individuals are more likely to open and fund savings accounts connected to CDHPs.^{14,15} Demographic and health status factors also play an important role in determining the medical spending savings, the consumer financial risk, and the potential adverse market effects of these plans. This issue is discussed below.

3.3 Reduction in Number of Uninsured

CDHPs were expanded under President George W. Bush, under the principle that CDHPs have the potential to reach people who would otherwise remain uninsured by driving down the cost of health insurance. Feldman et al. predicted that the use of HSAs along with the Bush administration's refundable tax-credit proposal would reduce the number of uninsured people by 6.1 million.¹⁶ Davis et al. suggest the coverage potential to be much less. The authors suggest two mechanisms for getting the uninsured into the market: (1) the tax incentives offset part of the cost, and (2) the premium for a HDHP is lower than other plans. However, because of the demographics of the uninsured and the potential financial burden (discussed later in this report), the authors do not predict a significant decrease in the uninsured population due to the plans.¹⁷

Using US Census data, 48.6 million people were uninsured in 2011. 46.2 percent are over 35 years old, and 53.4 percent are non-white, two groups less likely to enroll in CDHPs. Additionally, 46.9 percent live in households with income below \$50,000.¹⁸

To date, the potential reduction in the absolute number of uninsured people has not been realized. According to AHIP, from March 2005 to January 2011, the number of commercially covered lives in CDHP/HSAs increased by 10.4 million.¹⁹ Over that same time period, the number of uninsured increased by 5.6 million (see Exhibit 5).²⁰ It is unclear whether the take-up in CDHP/HSAs is due to individuals with insurance switching plans or a reduction in the uninsured—in which case the number of uninsured would be higher than seen.



With the federal individual mandate going into effect in 2014, there may be some additional take-up of these plans. Results from Massachusetts suggest that such an increase would be limited. Of the nearly 400,000 newly insured since 2006 in Massachusetts, nearly three-quarters were enrolled in subsidized coverage through either Medicaid or the Health Connector’s Commonwealth Care program, and therefore did not have the option for a CDHP/HSA. Of the remaining roughly 100,000 that went to the Health Connector for unsubsidized commercial coverage (through the Commonwealth Choice programⁱ), less than 10 percent chose CDHP/HSA.²¹ While some extrapolations can be made from the experience in Massachusetts, each state has varying demographics and distinct markets for health care services and insurance that can greatly influence CDHP take-up.

4 Effects of CDHPs on the Health Care System

Summary: In theory, CDHPs operate to reduce total medical spending through two mechanisms: consumers switching to lower-price providers and decreasing their utilization of services. The literature to date is mixed as to whether these methods of spending containment can be achieved without adverse consequences.

ⁱ Commonwealth Choice is a health insurance program for uninsured adult Massachusetts residents, also referred to as the individual non-group market. Run by the Commonwealth Health Insurance Connector Authority, the program offers unsubsidized health insurance to people who are not eligible for MassHealth or Commonwealth Care.

Today, there is general agreement that too much is spent on health care, partially driven by overuse and partially driven by higher prices. To address this issue, CHDPs aim to align incentives to reduce the overuse of health care and to increase the relative use of services from less expensive providers.

Before these incentives come into effect though, the consumer has already made an important decision—which insurance product to buy. Since insurance plan purchase is normally for a year at a time, the consumer's decisions and behaviors are now dictated by the structure of the product in the intervening period. Some studies suggest that the best opportunity to capture savings tied to consumer decision-making is when the consumer chooses their plan, and not when they are in need of medical care.²²

Once having chosen a CDHP, some studies suggest that these insurance plans may be successful in driving down medical spending.^{23,24,25,26,27,28} One mechanism is through provider-switching, also known as changes in provider mix. Because of the increased financial stake of consumers, consumers will look for value that balances price and quality.

The second mechanism for lowering medical spending is reduced utilization of services. If unnecessary services are being removed from the health care system, these reductions are beneficial to overall expenditures. If, however, individuals are forgoing necessary care due to CDHPs, health could deteriorate and the financial burden on the system could increase in the long-term. To better understand utilization reductions, a two-step analysis is needed: (1) determining what, if any, services individuals in CDHPs are forgoing, and (2) understanding how forgoing these services relates to an individual's short and long-term health status. To frame the discussion, this section will categorize the literature much like a recent Rand report on HDHPs, which includes some information on CDHPs.²⁹ The categories will include: provider-switching, estimated potential savings, selection issues, and reduction in utilization.

4.1 Provider-switching

Spending savings from provider-switching is dependent on the actions of the consumer. The theory of CDHPs is that consumers, incentivized to shop and armed with more information, will choose the better value option—balancing price and quality—thereby reducing overall medical spending. As a corollary, these actions are thought to drive down prices over time through competition and lead to further gains in reducing overall medical expenditures.

To date, evidence from studies does not show whether savings through provider-switching is being achieved, partially due to a lack of published literature and partially due to other market issues. For example, a major hurdle for this mechanism to work successfully is the availability of relevant price information to consumers. Studies highlight the importance of information for consumers as a necessary factor for CDHP success.^{30,31} In a survey of CDHP consumers, McKinsey and Company showed the majority reported “lack of information about provider prices” as their primary frustration with their plan.³² Another study of more than 40 large employers showed a lack of confidence about the price and quality information provided to their employees, with only 7 percent rating price information as “excellent” or “good.”³³ Achieving gains through provider-switching is dependent on good provider price and quality information.

4.2 Estimating Potential Savings

Breaking apart the HDHP and SO component is critical to understanding potential spending reductions from the use of CDHPs. Most estimates of how HDHPs would reduce medical spending stem from the Rand Health Insurance Experiment (“HIE”) study. In this classic study,

researchers were able to randomize the level of cost-sharing people received. Tracking spending over multiple years, the Rand study showed that as cost-sharing increased, medical utilization and spending decreased. Savings of 28 percent were found between the highest deductible group and no deductible. A more realistic comparison between the highest deductible group and today's "typical"ⁱⁱ insurance group found savings of 12 percent.³⁴ An HDHP replicates this effect—at least to the extent of the deductible.³⁵

CDHPs, however, are made up of two components, the HDHP *and* the SO option. Revisiting the HIE study, Newhouse, the director of the Rand study, suggests a misinterpretation of the HIE study results with relation to CDHPs. While the HIE study showed that there is a relationship between levels of cost-sharing and medical spending, the application of insurance products with high deductibles to reduce provider's cost *per episode* were less successful. Newhouse asserts other methods are needed, such as managed care, to reduce the provider's cost per episode.³⁶ These results align with how provider-switching will reduce medical spending. When consumers move to higher value options, procedures are reshuffled. Only when market pressure increases as providers lose volume will provider's cost per episode drop—an indirect effect of provider-switching.

Furthermore, Buntin et al. found that attaching an SO to a HDHP offset the spending reduction by nearly one-half as compared to a plan with just a HDHP.³⁷ This highlights the importance of the design of these insurance products. As Remler and Glied showed, capturing the savings from CDHP/HSAs will depend on the structure of the plans and what plans they are replacing. Their analysis suggests individuals at the very low end and some of those at the very high end of spending stand to save from CDHP/HSAs. For the group with substantial health care needs, since they are already subject to significant cost-sharing requirements, the CDHP/HSA may reduce their financial liability, therein reducing their price sensitivity.³⁸ Also, since most health spending is by the sickest patients, the existence of catastrophic coverage will mitigate any impact on total health expenditures.³⁹

With these caveats, what are the potential savings from CDHPs to the overall health care system? Studies vary greatly on estimating the potential for overall savings. Using data from 709 employers that measured medical spending over three years, Lo Sasso et al. found that total spending was lower by 5 to 7 percent for CDHP/HSA enrollees as compared to non-CDHP/HSA enrollees.⁴⁰ Baicker et al. suggest that, based on spending patterns, if an average individual switched from a typical PPO to a HSA plan, his or her spending would be reduced by 5 percent.⁴¹ Haviland et al. found that within employer-sponsored coverage, if the CDHP level moved from 13 percent to 50 percent of market share, savings of 4 percent would be achieved in the nonelderly. A portion of these savings, however, would come from reduced utilization of recommended medical services (see below).⁴²

Other studies, however, do not show clear evidence of population medical spending savings from CDHPs. Keeler et al. built a simulation model and theoretically predicted that if all non-elderly insured individuals were to enroll in a CDHP, spending would decrease in the range of 6 to 13 percent. When the authors then introduced plan choice—where certain individuals could choose to retain their current plans—potential savings reduced to -1 to +2 percent, showing that risk selection is an important consideration in evaluating overall potential savings.⁴³

Additional studies take these analyses further by accounting for more factors. Nichols, Moon, and Wall found that if all workers switched to a CDHP, national spending would fall by 15

ⁱⁱ "Typical" is defined as the 25 percent coinsurance rate.

percent. Once certain factors such as public insurance, selection patterns, and behavior within a CDHP were accounted for, however, the savings would more likely range from 4 to 6 percent.⁴⁴

At the individual level, a study by Milliman shows that once claims are adjusted for a favorable risk profile of the population choosing CDHPs, total savings were only 4.8 percent, as compared to unadjusted savings of 41 percent. Additionally, when induced utilization savings—those savings attributable to the HDHP portion of the CDHP—are accounted for, savings as a result of the SO are only 1.5 percent.⁴⁵

Examining a number of studies on large employer groups whose employees were enrolled in CDHPs, Bundorf concluded that the reduction in total spending ranged between 5 and 14 percent. Reviewing single-firm studies, however, the results were more varied, ranging from medical spending decreasing, remaining flat, and even increasing upon switching to CDHPs.⁴⁶ In conclusion, the level of savings thus far through CDHPs appears to be modest and is shown to be dependent on a variety of factors, including product design, market landscape, and population demographics.

4.3 Selection Issues

As with any insurance product, it is important to understand how financial risk is shifted when consumers switch from a traditional product to a CDHP. Largely, these financial risks are associated with different patient demographics. As described above, studies show income, age, race, and health status as important differentiating factors for selecting CDHPs.^{47,48,49,50,51} These studies looked at historic enrollment. Some studies built simulation models to see who gains the most from CDHPs. In one such study, McNeill showed that the young and healthy would gain the most from CDHPs, while the slightly and moderately sick would be worse off under the same plans.⁵² Another study suggests poorer and higher-risk families lose the most from the population shifting to MSAs.⁵³

A controversial topic is whether CDHPs are good options for low-income individuals. Because consumers have a greater financial stake, critics argue that a greater portion of income is spent on health care for low-income families.^{54,55,56} Limited research is available to confirm or deny this claim. Galbraith et al. found that individuals enrolled in high-deductible versions of HMOs reported greater financial burden, a finding that may be transferable to CDHPs.⁵⁷ Another study found large reductions in medical spending that was independent of family income.⁵⁸ One critique is that the authors defined family income based on the median income for an employee's zip code, and not at the individual family level, raising questions of potential measurement errors.⁵⁹ To date, though, no definitive literature is available regarding the effects of CDHPs on low-income families.

Selection biases are also associated with the channel of purchase. For example, large employers may offer their workers multiple insurance options including a CDHP that allows only certain employees with select demographics to migrate to it. Small firms may offer only one insurance option, and if it is a CDHP, there would not be a selection bias based on demographics. A recent article in Kaiser Health News suggests large employers are increasingly moving to offering only CDHPs. Of the companies surveyed by Towers Watson and the National Business Group, nearly 15 percent stated that a CDHP was the only option they provided employees, up from 8 percent in 2010.⁶⁰

The potential for these types of selection bias factors in affecting the take-up and impact of CDHPs raises several issues. First, a shift of healthier patients into the CDHP leaves a sicker population in the remaining insurance products. This migration creates an adverse selection

premium spiral, possibly driving out comprehensive coverage—an issue that is not unique to CDHPs but important given demographic differences in who is joining these plans.^{61,62} Second, higher tax savings accruing to higher-income people may explain why wealthier individuals are switching to these plans.

4.4 Reductions in Utilization

While CDHPs are intended to incent consumers to reduce utilization, consumers' choices may cause them to underinvest in prevention or care of asymptomatic chronic conditions, despite the long-term value of these services. It is known that with increased cost-sharing, both necessary and unnecessary care is reduced. It is important to distinguish between the two in order to properly assess the effects of CDHPs.

Understanding this interplay starts with product design, since including and excluding certain services will influence whether necessary and/or unnecessary care is forgone. If, for example, preventive services—often thought to be important for people for both health status as well as long-term spending reduction—were not covered, the Rand HIE study suggests a decrease in utilization. To ensure the continued utilization of these services, nearly all CDHPs exempt preventive services from the deductible. Some studies examining this type of product design find that the utilization of preventive services does not decrease, a positive outcome.^{63,64,65,66} Other studies suggest reductions in preventive services in the first year, a negative outcome.^{67,68,69,70} One item to note: the ACA has prohibited cost-sharing for evidence-based preventive services for any plan including CDHPs, making this type of necessary care less likely to be forgone in the future.

Behavior shifts in utilization are not just limited to preventive services. With regard to prescription drugs, studies show that increasing cost-sharing decreases the utilization of drugs.⁷¹ Research done on individuals who switched to CHDPs found they are two to three times more likely to discontinue antihypertensives and lipid-lowering drugs taken for asymptomatic conditions.⁷² While this type of behavioral change would not always have immediate health or spending repercussions, in the long-term, discontinuation of these types of drugs has been shown to result in higher levels of morbidity, hospitalization, and medical spending.^{73,74}

Enrollment in CDHPs is also shown to have impacts on acute care utilization. In one study by Wharam et al., the authors found that individuals in HDHPs visited the emergency department less frequently, with the reduction occurring mostly in repeat visits for conditions not classified as high severity.⁷⁵ The rates of hospitalization from the emergency department also decreased. These results suggest a reduction in unnecessary care. In another study by Wharam et al. specific to Massachusetts, reductions in emergency department (“ED”) visits were sustained over two years, but the reductions in hospital utilization and overall spending were not sustained by the second year.⁷⁶ These results suggest a potential reduction in necessary care that may have been deferred by those facing higher deductibles. A study by Buntin et al. showed that inpatient spending, outpatient spending, and prescription drugs decreased in the first year, but spending in ED care did not differ.⁷⁷ The authors in each of these studies caution that further research needs to be done to understand long-term utilization patterns.

These dynamics are further altered when moved from an individual setting to a family setting. In a study by Galbraith et al., researchers focused on Massachusetts families where one member had a chronic condition. The authors found that the chronically ill member maintained a constant level of care, but in HDHP plans, other family members, including children, under the same family policy received less care. The detrimental effect was more pronounced in lower

income families. The authors were unable to conclude whether the forgone utilization was necessary or unnecessary care.⁷⁸

As a review of the research on utilization shows, it is difficult to draw conclusions from the current literature with regard to the effects of CDHPs on utilization at this time. With the increased take-up of these plans, however, further research may show definitively the potential of CDHPs being realized.

5 Discussion

Summary: To date, the literature and data are not comprehensive enough to make policy recommendations on CDHPs. This report has focused on consumers and their behavior. More information is needed in these three outstanding areas: (1) understanding the Massachusetts landscape for the current and future use of CDHPs; (2) comprehending the dynamics of intermediaries (employers, payers and brokers) that are influencing the take-up of CDHPs; and (3) gaining knowledge of provider organizations' considerations that are affecting consumers' decisions to switch providers based on price. Working with key stakeholders, the Commission will issue a second report focused on these topics at a future time.

Based on our review of national and Massachusetts-specific literature, it is difficult to make specific policy recommendations on CDHPs at this time. This report has focused on consumer behavior. Important questions still remain with respect to intermediaries, including payers and brokers, and provider organizations. Reviewing the full continuum provides insight into questions such as why take-up rates tend to vary by state. Recently, the Pioneer Institute completed a report specific to the Massachusetts landscape, suggesting some reasons why penetration is low in the Commonwealth, including the culture of employers, penetration of HMOs, nonprofit insurers and providers in the marketplace, insurance regulation and politics, and the cost of plans.⁷⁹ As this report highlights, however, there is a lack of detailed data to examine these potential contributing factors to the low penetration of CDHPs in Massachusetts. Additionally, the introduction of other new insurance products such as tiered/limited network options could influence the appeal of CDHPs in the Massachusetts market.

Given these circumstances, the Commission has identified areas requiring further study:

1. Understanding the Massachusetts landscape for the current and future use of CDHPs
2. Comprehending the dynamics of intermediaries (employers, payers and brokers) that are influencing the take-up of CDHPs
3. Gaining knowledge of provider organizations' considerations that are affecting consumers' decisions to switch providers based on price

To address these, the Commission expects to work with a variety of stakeholders—including consumers, employers, and the health care industry—to gather the data that would allow for a better understanding of these issues. From these findings, the Commission would expect to prepare a future report focused on intermediaries and provider organizations, ultimately allowing for policy recommendations regarding tax-favored health plans.

COMMONWEALTH OF MASSACHUSETTS
HEALTH POLICY COMMISSION
Two Boylston Street, 6th Floor
Boston, MA 02116

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ACKNOWLEDGMENTS

Nikhil R. Sahni, Policy Director for Cost Trends and Special Projects, prepared this report under the direction of **Commissioner Paul Hattis**, Chair of the Community Health Care Investment and Consumer Involvement Committee, **Commissioner Stuart Altman**, Chair of the Commission, and **David Seltz**, Executive Director of the Commission. All other commissioners provided input and guidance, especially **David Cutler**, **Rick Lord** and **Jean Yang**.

Additional staff within the Commission also made significant contributions to the preparation of this report. **Jenifer Bosco**, **Andrew Cohen**, **Coleen A. Elstermeyer**, **Lois H. Johnson**, and **Marian Wrobel** all reviewed the contents and provided comments.

The Commission would also like to thank all the academic experts and industry experts who volunteered their time, thoughts, and comments in the preparation of the report.

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