



MASSACHUSETTS
MEDICAL SOCIETY

Assessment of the Impact of High-Deductible Health Plans on Patient Health and the Financial Impact on Medical Practices

EXECUTIVE SUMMARY

At A-16, the HOD adopted as amended Report A-16 B-2, *Assessment of the Impact of High-Deductible Health Plans on Patient Health and the Financial Impact on Medical Practices*. The BOT referred these directives to the Committee on the Quality of Medical Practice Co-chairs Barbara Spivak, MD, and Richard Lopez, MD, as well as MMS staff for implementation and an informational report to the HOD. The report directs:

1. That the MMS, in order to devise advocacy regarding plans with increased cost-sharing (including, but not limited to, copayments, co-insurance, high-deductibles, and other out-of-pocket expenses), shall research and explore standards for improving patient education and policies regarding out-of-pocket costs for preventive and diagnostic services in these health plans. (D)
2. That the MMS, in order to devise advocacy regarding plans with increased cost-sharing (including, but not limited to, copayments, co-insurance, high-deductibles, and other out-of-pocket expenses) shall research and explore health care delivery systems, cost transparency, and payment models for these health plans, in order to (a) improve the ability to collect patient payments and (b) engage patient compliance with necessary medical care. (D)

Tiffany Chan and Nancy Turnbull of the Harvard T.H. Chan School of Public Health authored this report with guidance and input from the Committee on the Quality of Medical Practice Co-chairs Barbara Spivak, MD, and Richard Lopez, MD, as well as MMS staff.

According to the Center for Health Information and Analysis, in 2015, nearly one million people in Massachusetts (21% of residents with private health coverage) were enrolled in a high-deductible health plan (HDHP), an increase of nearly 350,000 people since 2012. HDHPs and other plans with significant cost-sharing are growing because they offer affordable premiums and are increasingly the only option offered by many employers, particularly smaller firms. The hope of many is that greater patient cost-sharing will help reduce health care spending by making patients “more prudent purchasers” of medical care. However, the research shows clearly that HDHPs can have a variety of adverse effects on patient health and financial security. Further, many consumers do not understand the cost-sharing features of their coverage. The rise of HDHPs in Massachusetts has coincided with increased financial distress among insured state residents about costs and medical bills, and reports of growing financial insecurity, particularly among people with lower incomes and/or greater medical needs. In addition, the growth of HDHPs and other forms of significant cost sharing creates a variety of problems for physicians, including increased administrative burden, more bad debt, and the potential to adversely affect efforts to coordinate patient care.

The following report explores the impact of HDHPs and other cost-sharing plans and offers the MMS some options for advocacy.

DISCUSSION

Introduction

Massachusetts justly prides itself on being the state with the highest level of health insurance coverage in the country. However, affordability and disparities in health insurance quality remain major problems. As individuals, purchasers and health plans in Massachusetts — and the rest of the United States — continue to struggle with rising health care costs, employers are shifting more and more of the cost of medical care to employees and their families by increasing cost-sharing in their health insurance plans. People who buy their health coverage directly from insurers, rather than being covered by employer plans, are also facing higher levels of cost-sharing, as they seek to keep health coverage affordable by purchasing policies with larger deductibles and other forms of cost-sharing.

In theory, shifting the cost of health care from insurers to consumers is a simple and proven mechanism for moderating the cost of health insurance. Plans that feature higher levels of cost-sharing are more affordable, as employers and individuals exchange lower premiums for higher out-of-pocket costs for insureds if and when they use medical services.

However, the impact of cost-sharing on patients and physicians is an ongoing concern of many, including the Massachusetts Medical Society (MMS), and with good cause. A review of the literature on the impact of cost-sharing on consumer behavior and health outcomes finds compelling evidence that exposing consumers to increased cost-sharing has unintended, negative consequences. Cost-sharing, even when coupled with available information on the price of services, does not generally lead patients to “shop” for lower-priced services. Instead, patients more often indiscriminately reduce their use of health services, including high value services, such as preventive care. The burden of higher cost-sharing has a disproportionate impact on consumers with lower incomes, for whom paying the full amount of a deductible may exceed their liquid assets, and on those who have the most significant medical needs.

Further, the rise of significant cost-sharing in Massachusetts and across the United States has coincided with increased financial distress and financial insecurity for consumers. This shift in financial responsibility toward patients has contributed to physicians’ concerns and unease about collecting amounts due from patients with large deductibles and other forms of cost-sharing. Notably, patients may not understand their financial responsibilities and/or have the financial resources to make these payments. However, if physicians do not collect these cost-sharing amounts, they incur bad debt that adversely affects the financial health of their practices.

Unfortunately, these concerns are likely to grow because of the potential for significant policy changes ahead on the federal and perhaps state level, that will likely encourage further growth of less comprehensive health coverage, including more cost-sharing. Continuing escalation of medical costs makes employers and individuals even more likely to purchase health plans with ever higher levels of cost-sharing.

The Massachusetts Medical Society House of Delegates commissioned this informational report to explore existing evidence on the prevalence and impact of cost-sharing in Massachusetts, particularly high-deductible health plans, in order to guide physician policy and advocacy efforts. The report recommends that the MMS use its voice and influence at both the state and federal levels to continue to raise concerns about the adverse impact of cost-sharing on patient health and financial security, and about the limits of transparency as a means to address these problems. We outline several policy positions that the MMS could take to help protect patients and physicians from further growth in cost-sharing, including maintaining the state's minimum standards for health plan coverage and limits on out-of-pocket expenses for covered services, urging the state to more closely monitor and assess the impact of HDHPs on patients and providers, and promoting the development of more sophisticated and nuanced forms of cost-sharing. Finally, we encourage the MMS to work to lower the burden of health care costs on patients by encouraging and improving conversations between physicians and patients about the costs of care and alternative options for treatments, prescriptions, etc., and to continue to be a strong and vocal advocate for the adoption of other more equitable and durable means of controlling overall medical spending.

Goals of this Report

This informational report was requested by the Committee on the Quality of Medical Practice by the House of Delegates of the Massachusetts Medical Society in order to assess “the impact of high-deductible health plans on patient health and the financial impact on medical practices.”

The goal of the report is to help the MMS devise advocacy regarding such plans, including:

- Standards for improving patient education and policies regarding out-of-pocket costs for preventive and diagnostic services in these health plans.
- Health care delivery systems, cost transparency, and payment models for these health plans, in order to (a) improve the ability to collect patient payments and (b) engage patient compliance with necessary medical care.

(See Appendix 1 for the full text of the directives.)

AN OVERVIEW OF COMMON COST-SHARING FEATURES

Cost-sharing in health coverage generally takes one of several forms (*see Appendix 2 for a glossary of cost-sharing terms*):

- **Co-payment:** A fixed amount that a patient pays each time they use a health care service that is subject to the copayment. For example, a patient might pay a \$20 co-payment each time they have a routine office visit.
- **Co-insurance:** A percentage of the fee for a health care service. For example, if the total charge for a service is \$200 then a patient might pay 20% of the fee, or \$40.
- **Deductible:** A fixed amount that a consumer must pay out-of-pocket, such as for copayments and coinsurance, before the health insurance will pay any amount for some or all services. For example, the consumer might have a \$1,500 deductible, which means that she pays the first \$1,500 of medical expenses for covered services before the health plan provides any coverage.

These three forms of cost-sharing are often used in combination with one another, and with other plan design provisions, such as fee schedules, maximum allowable charges, annual out-of-pocket limits on cost-sharing, and provider network design (e.g., preferred provider or point-of-service plan features, limited provider networks).

- **High-deductible health plan:** The term “high-deductible health plan” (HDHP) is commonly used to refer to any plan where patients pay a significant deductible. There is no uniform definition of “significant deductible.” However, a common benchmark is the minimum annual deductible level for a plan to be eligible to be paired with a tax-qualified spending account. In 2017, the IRS-approved minimum deductible for this purpose is \$1,300 for an individual plan and \$2,600 for a family policy.

HDHPs are often paired with a savings account in order to help consumers save for and finance some of their out-of-pocket medical expenses. These accounts come in several types:

- **A health savings account (HSA)** is a tax-free account that can be paid into by both the employer and the employee. It is controlled by the employee, rolls over from year-to-year, and can only be used in combination with a high-deductible health plan, as defined by the federal government. The federal government sets limits on the annual amount that may be contributed to an HSA.
- **A flexible spending account (FSA)** can be funded by the employer and employee but it does not roll over at the end of the year, and does not have to be combined with an HDHP.
- **A health reimbursement account (HRA)** is a tax-free account that is funded by the employer and can be used by an employee to pay for certain types of medical expenses. Any year-end balances in the account are owned by the employer.

In order to be eligible to be combined with a federally tax-advantaged saving account, a policy must meet the *minimum* deductibles established each year by the IRS. (See *Appendix 3 for a history of the IRS minimum deductibles and maximum out-of-pocket limits for HDHPs.*)

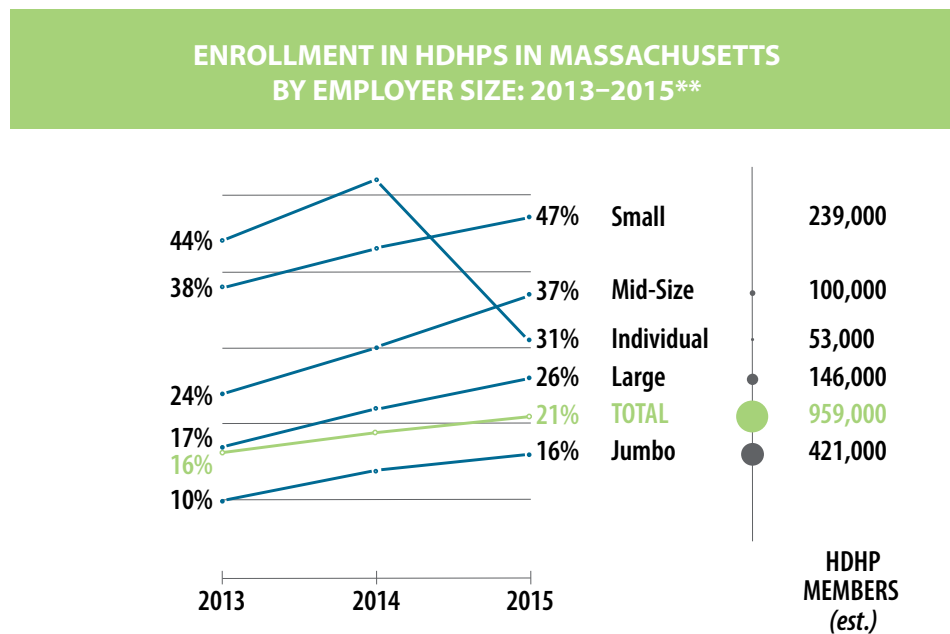
When paying for out-of-pocket medical services, individuals may use funds in their tax-qualified savings account. After the balance in the account is exhausted, individuals pay for services with after-tax income (sometimes referred to as a “donut hole”) until their out-of-pocket medical expenses reach the amount of their deductible. At this point, if the individual has additional cost-sharing (e.g., coinsurance), they pay the cost-sharing amount until they reach their annual maximum out-of-pocket limit, after which their health plan pays for any additional expenses for covered services.

THE LANDSCAPE IN MASSACHUSETTS

According to the Center for Health Information and Analysis, in 2015, nearly one million people in Massachusetts (21% of residents with private health coverage) were enrolled in a health plan with a high-deductible health plan (HDHP), as defined by the IRS standards. (In 2015, these standards were a minimum deductible of \$1,300 for an individual plan and \$2,600 for a family policy.) This was a seven-percent-point increase since 2012 — or an increase of nearly 350,000 people.

In Massachusetts, HDHPs are more likely to be purchased by people in the individual/nongroup markets. Just over half of people with individual/nongroup health coverage had such plans,¹ compared to about 20% of people with employer-based coverage. Massachusetts appears to be comparable to the broader United States, where 29% of people with employer coverage were enrolled in a HDHP in 2016, up from 20% in 2014. (See Appendices 4-1 to 4-4 for more information on HDHPs and cost-sharing in the United States)

The prevalence and membership in employer-based HDHPs in Massachusetts varies inversely with employer size. Nearly half of people covered by small firms — those with 50 or fewer employees — are enrolled in HDHPs (47%); the proportion declines to 37% among mid-sized firms (51–100 employees) and to about 16% among the largest employers (500+ employees). In the United States, enrollment in HDHPs also varies by employer size; in 2016, 30% of insured employees in large firms (those with 200+ employees) were enrolled in HDHPs, compared to 26% of employees in smaller firms.²



Source: CHIA, *Annual Report on the Performance of the Massachusetts Health Care System* (September 2016), p. 37.

HDHP enrollment in Massachusetts also varies by region of the state, which is related to the distribution of employers by size. In 2014, 14% of people in Boston with commercial coverage were enrolled in HDHPs, while on the Cape and Islands, 25% with commercial insurance coverage had HDHPs.³

¹This estimate excludes ConnectorCare members. The CHIA trend for the proportion of people in the individual market who have HDHPs is distorted by the inclusion, starting in 2015, of individuals in the ConnectorCare program, who have subsidized coverage with lower deductibles.

²(Kaiser Family Foundation, 2016) Data from Table 8.4.

³(CHIA, *High Deductible Health Plan Membership*. Annual Report Series 2015) The report does not provide data for other regions of the state.

REASONS WHY ENROLLMENT IN PLANS WITH HIGHER LEVELS OF COST-SHARING IS GROWING

The growth of HDHPs and other forms of cost-sharing in health coverage can be explained by several factors:

Higher cost-sharing results in lower premiums: In selecting health coverage with higher cost-sharing, employers and individuals are making a trade-off between lower premiums and higher out-of-pocket spending. Cost-sharing is a simple, predictable, and effective means of reducing premiums and moderating premium increases.

For example: A 30-year-old who purchases individual health insurance on the Massachusetts Health Connector from Blue Cross Blue Shield could reduce their monthly premium by 45% if they purchased a Silver level policy with a \$2,000 deductible/\$7,150 annual maximum instead of a Platinum policy with no deductible and a \$3,000 annual out-of-pocket maximum (a reduction from \$832/month to \$458, for an annual savings of approximately \$4,500. (The percentage reductions in premiums for other carriers selling on the Health Connector are in the same range, regardless of the age of the individual.)⁴

Many employers believe that higher cost-sharing will encourage consumers to use higher value medical care: The growth of HDHPs and other plans with significant cost-sharing results mainly from increases in health care costs. However, some purchasers and policymakers also believe that cost-sharing is an attractive and desirable feature of health coverage because it will encourage consumers to be more “prudent purchasers” of medical care.

This rationale for cost-sharing is rooted in the economic concept of “moral hazard,” or the idea that insurance shields people from the actual costs of medical services, and so changes their behavior when they “consume” medical care. By lowering the cost of medical care for the patient, insurance encourages people to use more health care than is optimal, and to use higher cost services than is optimal. Using this logic, cost-sharing encourages patients to be more appropriate “consumers” of medical care, by exposing them to more of the actual cost of care.

Cost-sharing does theoretically give consumers stronger financial incentives to seek less expensive care, to obtain more clinically appropriate services, and to avoid unnecessary care. As discussed in more detail later in this report, the research literature finds that cost-sharing reduces spending on care, although it also finds that patients with high levels of cost sharing reduce use of both low-value and high-value health care services. Although it is impossible to assess the extent to which this economic rationale for cost-sharing and the support for it in the research literature have influenced the growth of HDHPs, many employers, health economists, and policymakers have enthusiastically embraced the growth of health plans with more cost-sharing.

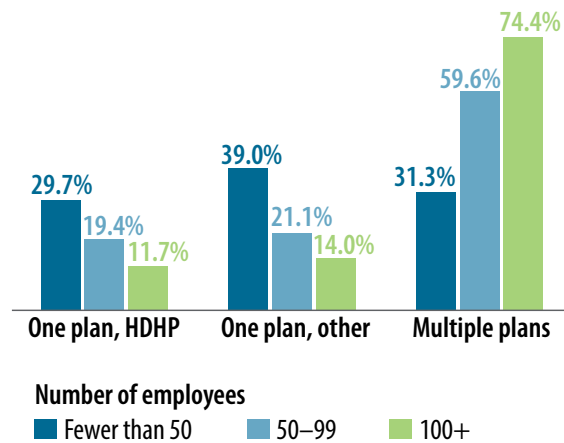
Selecting a plan with lower premiums but high cost-sharing can be a rational and appropriate choice for many consumers: The trade-off between premiums and cost-sharing makes economic sense for many consumers. In particular, coverage with significant cost-sharing may be well-suited to younger and/or healthier people who do not anticipate significant medical expenses.

⁴Based on premiums rates at <https://www.mahealthconnector.org>, for a 30-year-old in zip code 02115.

Some health economists and policy analysts suggest that it may also make sense for people who anticipate high levels of medical spending: one study found that those with the highest health care costs, who would exceed limits on out-of-pocket payments, might expect to see the same *total* out-of-pocket spending under an HDHP as if they purchased a plan with less cost-sharing but higher premiums.⁵ (This study does find, however, that people with moderate health care spending, particularly the chronically ill, would be worse off with such a plan.)

Consumers often do not have a choice of plans with lower cost-sharing: Although many individuals would prefer health coverage with limited cost-sharing, this option may not be available. More and more firms in Massachusetts, and elsewhere in the United States, particularly smaller companies, do not offer their employees a choice of health plan, and increasingly, firms are only offering a high-deductible health plan. As shown in the following figure below, in 2014, 69% of small Massachusetts businesses (50 or fewer employees) and 40% of mid-size businesses (50–99 employees) offered their employees only one choice of health plan. Nearly one-third of small businesses and 20% of mid-size employers offered only a HDHP. Even among larger employers, nearly 12% offered only a HDHP. The majority of Massachusetts employers who offer HDHPs pair them with some type of savings account; 40% offer FSAs, 16% offer HRAs, and 14% offer HSAs.⁶

NUMBER OF HEALTH PLAN OFFERINGS BY FIRM SIZE IN MASSACHUSETTS: 2014



Notes: Number of plans offered to employees by size of their company. The definition of multiple plans could include more than one plan type from a single carrier.

Source: HPC Analysis of the Center for Health Information and Analysis' Massachusetts Employer Survey, 2014.

Source: Mass. Health Policy Commission. *Select Findings: 2016 Cost Trends Report*. (January 11, 2017). p. 48.

⁵(Baicker, Dow, and Wolfson, 2006)

⁶(CHIA HDHP, 2015)

Even when consumers have a choice of plan, they may not be able to afford coverage with less cost-sharing:

Many people do not like choosing a plan with a higher deductible and more cost-sharing, but they cannot afford more comprehensive coverage. This is reflected in lower satisfaction among people with HDHPs. A 2015 survey of people with nongroup insurance found that people with higher deductible plans (\$1,500 or more for an individual) were much less likely to judge their plans as being of “good” or “excellent” quality compared to those with lower deductible plans (37% vs. 68%). Conversely, those with higher deductible plans were twice as likely to describe their plans as a “poor” or “fair” value (29% vs. 60%) and were nearly three times as likely to report that they felt vulnerable to medical bills (55% vs. 22%), compared to those with lower deductible plans. Fifteen percent said they would not be able to afford to pay a medical bill equal to \$1,500, the value of a higher deductible, and another 43% said they could have to borrow money or go into credit card debt.⁷

The ACA subsidy system gives consumer incentives to purchase plans with higher cost-sharing: The tax credits in the ACA are based on the premium for so-called Silver Plans, which have relatively high levels of cost-sharing. Individuals with incomes from 100–250% of FPL can qualify for cost-sharing reduction subsidies, which reduce coinsurance, and lower copays, deductibles, and maximum out-of-pocket costs, but only when the consumer purchases a Silver Plan. In the Massachusetts ConnectorCare program, the state has made additional investment of state funds to keep cost-sharing and premiums lower than they would otherwise be under the ACA structure. Without these state funds, consumers in Massachusetts who qualify for federal tax credits would pay higher premiums for coverage with more cost-sharing.

Low health insurance and health literacy among consumers: Research clearly shows that most consumers do not understand their health insurance, especially more complicated concepts like deductibles and coinsurance. It is also difficult, if not impossible, for most people to accurately anticipate their medical needs and expenses.⁸ As a result, consumers often have trouble making informed decisions about their insurance and may pick a health plan with cost-sharing even if they will be making regular or significant health care expenditures. For many such patients, a more comprehensive plan would actually result in lower total spending, when considering a combination of premiums and cost-sharing.

THE IMPACT OF HIGHER LEVELS OF COST-SHARING

Research on cost-sharing has primarily compared different forms of cost-sharing and the effects of cost-sharing on utilization and spending. The impact of HDHPs and other forms of cost-sharing on health outcomes has not been examined in detail. Several key findings emerge from a review of the literature on HDHPs and cost-sharing more generally.

⁷(Hamel, Norton, Levitt, Claxton, and Brodie, 2015)

⁸(Loewenstein et al., 2013)

Higher Cost-Sharing Can Reduce Medical Spending, But Reduces the Use of Both High and Lower Value Services

For employers and individuals, the appeal of cost-sharing is its simplicity and effectiveness in lowering insurance premiums. As noted earlier, many economists and policymakers also believe that cost-sharing will help reduce health care spending, particularly by making consumers “more prudent purchasers” of medical care.

The majority of research suggests that when cost-sharing leads to lower health care spending, this is largely caused by reductions in the use of health care services. Multiple studies show that consumers do use fewer services when they are enrolled in health plans that feature higher cost-sharing (copayments, coinsurance, and deductibles). The most famous study, the RAND Health Insurance Experiment, a randomized, controlled trial in the 1990s, provided “gold standard” evidence that increasing financial responsibility for patients reduced use of health care services and spending.⁹ Participants with the “stingiest plan” (a deductible of ~\$1,000) used 66% less care than participants who had no cost-sharing.¹⁰

More recent research using employer claims data suggests that people enrolled in health plans with high cost-sharing both seek out less care, and use both fewer and less expensive services when they do.¹¹ For example, a more recent study by RAND found reduced medical spending among individuals with higher deductible plans (plans with deductibles of at least \$1,000).¹² However, these savings declined when employers made significant contributions to spending accounts that could be used to offset the impact of the deductible.

Although there is little data on this topic that is specific to Massachusetts, one recent analysis by CHIA found that overall medical expenses for state residents enrolled in HDHPs was, on average, 13% lower than for individuals not in HDHPs, after controlling for a range of demographic factors related to health care utilization. CHIA concluded that these reductions “may indicate reduced member service utilization, unobserved health status differences, and/or increased price-awareness by enrollees, patterns consistent with recent studies...” and it also noted that “the evidence is mixed on whether lower costs may be sustained in the long-term and whether the reduced spending comes at the expense of necessary care.”¹³

However, there is a substantial amount of evidence that, when faced with increased cost-sharing, consumers often indiscriminately reduce their use of health services, including reducing use of high-value care. Research documents a number of specific effects, including:

- **Reduced use of necessary preventive services.** The savings from the original RAND experiment first documented that individuals reduced both appropriate and inappropriate care when faced with cost-sharing. More recent studies have found that higher cost-sharing, including copayments can lead to reduced use of preventive services like mammograms and colonoscopies.^{14, 15, 16}

⁹(Keeler et al., 1982)

¹⁰(Keeler, 1992)

¹¹(Haviland et al., 2011)

¹²(Beewukes, 2011)

¹³(CHIA, HDHP, 2015)

¹⁴(Blustein, 1995)

¹⁵(Trivedi et al., 2007)

¹⁶(Wharam et al., 2011)

- **Poor adherence to treatment protocols.** Patients enrolled in plans with significant cost-sharing, including HDHPs, have been found to avoid medical tests ordered by their physicians¹⁷ or forgo filling prescriptions.¹⁸
- **These effects are more pronounced for patients with lower incomes,** who are more likely to forego care or make care substitutions that will be lower-cost, especially when cost-sharing differs among different options of care.¹⁹

Many Consumers Do Not Understand Cost-Sharing Mechanisms in Their Health Insurance

A large body of research finds that consumers do not understand key features of their health insurance, including cost-sharing concepts such as deductibles, co-insurance levels, and benefit maximums. One comprehensive survey of the literature on the ability of consumers to understand and use their health insurance concluded that: "...Consumers dread shopping for insurance, don't have a good understanding of cost-sharing concepts, and require a high level of numeracy to make informed judgments about and choices between medical plans."²⁰ The researchers found strong evidence that consumers do not understand health insurance plans well, and could benefit from simpler health insurance plans, including plans without deductibles and coinsurance.

Other studies have confirmed these findings. For example, one study found that only half of surveyed patients who had deductibles knew that they had the deductible, and among these, only 2% knew both the amount of the deductible and all of the services to which the deductible applied. This lack of knowledge led many people to delay or avoid getting care, even when services could be obtained with no cost-sharing. More patients with deductibles reported altering their care-seeking behavior than those without deductibles, even for services such as office visits or preventive care that were not included in the deductible.²¹

Over the Past Decade, Massachusetts Residents Report that Health Plan Deductibles and Copayments are a Growing Financial Burden

Survey data available to the MMS, tracked annually by Mass Insight Global Partnerships for its members, indicate that health plan deductibles and copayments represent a growing financial burden. In the Mass Insight/ODC survey of Massachusetts residents in April 2016, 19% of survey respondents reported that the deductible in their health plan was a "very big burden," compared to 10% in 2005. The percent of respondents who reported that the deductible was a burden or a very big burden more than doubled, from 19% in 2005 to 41% in 2016. When asked about the financial burden of copayments, 14% of respondents in 2016 said that the copayments were a "very big burden" when they received treatment, compared to 8% in 2005; in 2016, nearly a third reported that copayments were a burden or a very big burden on the financial burden scale, compared to only 17% in 2005.²²

¹⁷(Reed et al., 2009)

¹⁸(Lee and Zapert, 2005)

¹⁹(Wharam et al., 2011)

²⁰(Loewenstein et al., 2013)

²¹(Reed, 2015)

²²(Guenther et al., 2016)

The Impact of Higher Cost-Sharing is Borne Disproportionately by People with Lower-Incomes and Poorer Health

Deductibles and other cost-sharing features of health insurance plans do not vary by the income or health status of the people who are insured. As a result, deductibles, coinsurance, and copayments are inherently regressive (i.e., they impose a proportionately greater financial burden on individuals with lower incomes).²³ People enrolled in HDHP in Massachusetts paid almost twice as much in average cost-sharing in 2014 compared to enrollees in more traditional plans, indicating the potential for significant pressure on patients' liquid assets.²⁴

When health coverage requires significant cost-sharing, the burden of out-of-pocket expenses falls disproportionately on patients with significant medical needs and those with lower incomes. The effect is particularly significant for those with lower incomes, who are also at higher risk of being in poorer health, and who have fewer financial resources to absorb significant out-of-pocket health expenses.

According to the Blue Cross Blue Shield of Massachusetts Foundation's 2015 Massachusetts Health Reform Survey, low-income insured adults were much more likely than insured higher-income adults to report that health care costs had caused financial and/or nonfinancial problems in the previous year (52% vs. 32%). Individuals who reported fair or poor health or who had a health limitation or chronic condition were also much more likely to report that health care costs had caused problems over the past year than were insured adults in good, very good, or excellent health, including foregoing needed care. These individuals were also much more likely to cut back on savings or take money from savings to address family health care spending over the past year, individuals with lower-income and who are less healthy are also more likely to borrow money or take on credit card debt to address health care spending.²⁵

The Health Policy Commission's 2016 *Cost Trends Report* confirms the heavier burden of health care costs on individuals with lower incomes. Although the average annual dollar amount, and distribution, of out-of-pocket health care spending is similar for residents in high income and lower income areas of the state (see *Appendix 5*), as shown in the chart below, residents with low-to-middle income have higher health care costs relative to their income than residents with higher levels of income.²⁶

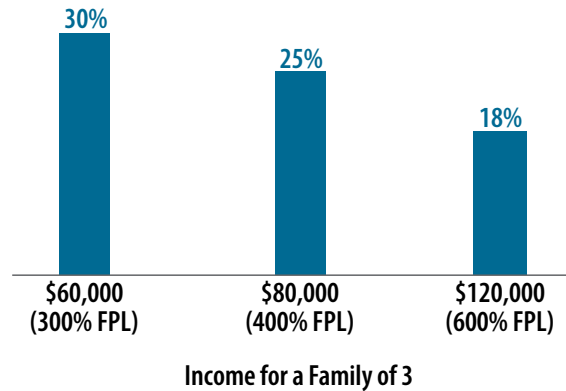
²³This is also true in the premium structure of most private health insurance, although some employers vary employee premium contributions by employee salary. See <http://khn.org/news/michelle-andrews-on-premiums-based-on-salary>.

²⁴(Center for Health Information and Analysis, 2016)

²⁵(Blue Cross Blue Shield of Massachusetts Foundation, 2016)

²⁶(Health Policy Commission, 2017)

TOTAL HEALTH INSURANCE PREMIUM AND OUT-OF-POCKET MEDICAL SPENDING RELATIVE TO INCOME, 2015



Notes: FPL = federal level poverty. Data reflects families with family coverage through an employer and include health insurance premiums (including employer and employee contributions) and out-of-pocket spending. Income levels do not account for employer contribution to health insurance premiums or other employer benefits paid. See Technical Appendix for more details.

Source: Agency for Healthcare Research and Quality and Center for Health Information and Analysis, 2015.

Source: MA Health Policy Commission (2017), p. 13.

Going without Needed Care is a Common Patient Strategy to Reduce the Financial Burden of Health Care Costs

Research has shown that patients with the worst self-reported health are more likely than others to significantly change their care-seeking behavior as a result of cost-sharing,²⁷ raising serious concern about adverse clinical consequences. According to the 2015 Massachusetts Health Reform Survey, low-income insured adults were more than twice as likely as adults with higher incomes to report not getting needed health care due to costs in the past year (28% vs. 13%). Individuals who reported fair or poor health or who had a health limitation or chronic condition, were also much more likely to report that they had foregone needed care because of costs than adults who reported good health and/or no health limitations or chronic conditions.²⁸

²⁷(Reed et al., 2009)

²⁸Ibid. Twenty-nine percent of adults in poor or fair health reported not getting needed medical care, compared to 18% in good/very good/excellent health; 24% of those with health limitations and/or chronic conditions reported foregoing needed care, compared to 15% of adults who reported no limitations or chronic conditions.

The effects of cost-sharing may extend beyond the individual patient. For example, research shows that children whose families face cost-sharing reduced their use of health services by up to a third.²⁹ The American Academy of Pediatrics described its concerns about spill-over effects that plans with high levels of cost-sharing can have on entire families.³⁰ There is little literature on the impacts of HDHPs on children's health. However, there are signs that the most vulnerable children are likely to be affected. In one study, researchers found that two types of families are more likely to be switched to a high-deductible health plan: families insured through small employers who are healthier and have lower health care costs, and families insured through large employers who have high-risk characteristics, such as living in neighborhoods with high poverty, low education, higher family morbidity, and higher baseline total expenditures.³¹ Families with children in the latter category — at higher financial and medical risk — are a potential area for concern.

The Rise of More Significant Cost-Sharing in Health Coverage Coincides with More People in Massachusetts Reporting Problems Paying Medical Bills and Medical Debt

The rise of significant cost-sharing has coincided with an increase in financial insecurity and medical debt among Massachusetts residents.

Despite the state's significant progress on increasing the number of people with health coverage, the same proportion of insured adults reported problems paying medical bills in 2015 as in 2006, before the state's reform law was passed (16% in both years).³² The proportion of insured adults who reported problems with medical debt increased between 2006 and 2015 (from 17% to 21%). In 2015, among state residents with moderate income (between 138–300% of the federal poverty level), more than half (54%) reported that medical expenses were a problem, 15% reported that out-of-pocket spending exceeded 5% of their income, 24% reported difficulty paying medical.³³ Even one-third of residents with higher incomes (400+% FPL) reported that medical costs were a problem.

Given that nearly everyone in Massachusetts in these income categories had health insurance, such persistent challenges with medical costs demonstrate that the state seems to have made little overall progress on improving financial security related to medical expenses. More than half of all *insured* adults in Massachusetts in 2015 reported being somewhat or very worried about their ability to pay medical bills in the future,³⁴ and, as noted earlier, these concerns were greatest among individuals with low or moderate incomes and people with worse health or chronic conditions. Despite improvements in expanding the number of people with health insurance, the increase in cost-sharing poses a financial risk for the most vulnerable people.

On a national level, the issues are the same. In a 2015 national survey, only 45% of lower-income households (100%–250% FPL) with private coverage reported that they had sufficient liquid financial assets to meet the most common deductible amounts in plans sold on health insurance exchanges (\$1,200 single/\$2,400 family); only 32% of such households could meet higher deductible amounts

²⁹(Valdez et al., 1985)

³⁰(Committee on Child Health Financing, 2014) and (Kullgren et al., 2010)

³¹(Galbraith et al., 2009)

³²(Blue Cross Blue Shield of Massachusetts Foundation, 2016)

³³Center for Health Information and Analysis. 2015 Massachusetts Health Insurance Survey. (December 2015)

³⁴(Blue Cross Blue Shield Foundation, 2016)

(\$2,500 single/\$5,000 family).³⁵ This means that families with limited resources may be less able to use their health insurance coverage, and, when they do, they may have particular challenges paying for their care.

Increased Cost-Sharing Could Have Negative Effects on Efforts to Coordinate Care

Massachusetts is encouraging the growth of Accountable Care Organizations (ACOs) as a means to better coordinate patient care, improve population health, and control the growth of medical spending. The MassHealth program is implementing an ACO model of care for most of its members, and the Affordable Care Act has encouraged the development of ACOs for Medicare beneficiaries (including several in Massachusetts). Commercial insurers are also continuing to implement payment methods that encourage groups of providers to share financial risk and medical responsibility for providing high quality care to defined populations.

Significant levels of cost-sharing for patients could work to undermine the effectiveness of ACOs in providing coordinated care to their members. Patients with large deductibles and other forms of cost-sharing are more likely to try to find the price of health care services before getting care, compared to people in plans with no deductibles,³⁶ and are more sensitive to price differences. Seeking out care at lower-priced providers that are outside of a patient's ACO could reduce care coordination and disrupt attempts by physicians and physician groups to maintain consistent medical records and care management and coordination for their patients — especially those participating in ACOs. A recent Urban Institute and Catalyst for Payment Reform report raises concerns that while cost-sharing may reduce use of unnecessary care, high deductibles could compromise patient adherence, undermine care management, and impair physician performance on quality measures and those associated with secondary preventive services.³⁷

Patient Cost-Sharing Imposes a Range of Financial and other Burdens on Physician Practices

The problems that cost-sharing create for patients also raise a number of concerns and burdens for physicians. First, and most importantly, physicians are concerned about the impact of cost-sharing on the health and well-being of their patients. In addition to this paramount concern, the rise of cost-sharing creates other issues for physicians:

- **Effect on the patient/physician relationship:** Research suggests that patients are often reluctant to discuss out-of-pocket costs with physicians and to question medical advice, even when they know that costs could be an issue. Though patients are reluctant to engage their physician in conversations about prices and costs, people in HDHPs are more likely to engage in cost-conscious behaviors than people in other plans. A 2015 study by Employee Benefit Research Institute found that people in HDHPs and high-deductible plans with health spending accounts were significantly more likely to discuss costs with doctors. As shown below, this included: asking for a generic drug instead of a brand name; talking to their doctors about prescription options and costs; asking a doctor to recommend a less costly drug; and talking to their doctors about other treatment options and costs.³⁸

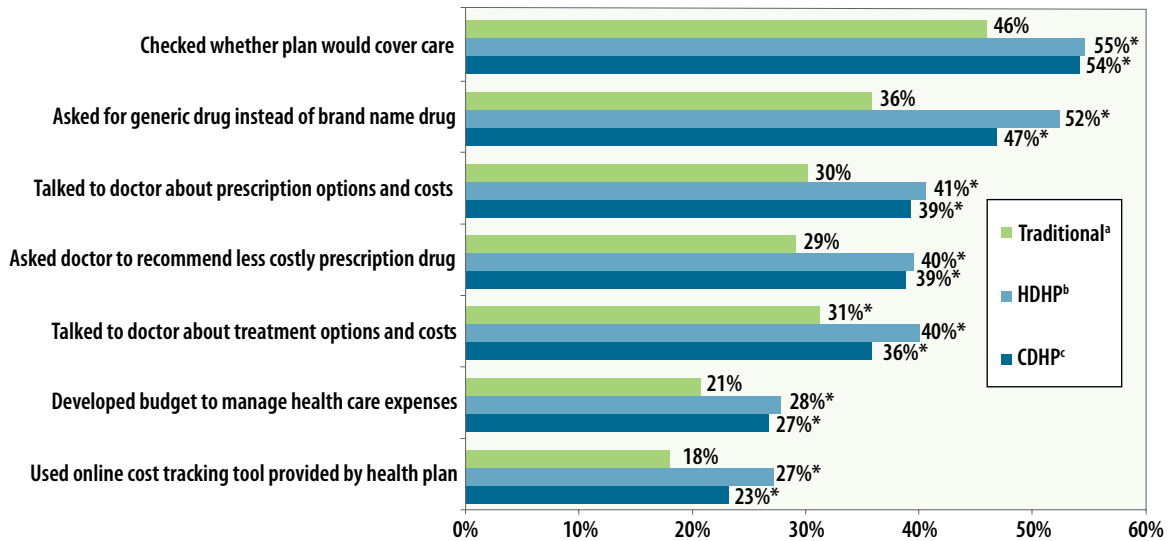
³⁵(Claxton et al., 2015)

³⁶(Fronstin, 2015)

³⁷(Berenson et al., 2016)

³⁸(Fronstin, 2015)

COST-CONSCIOUS DECISION MAKING, BY TYPE OF HEALTH PLAN, 2015
(Percent of privately insured adults ages 21–64 who received health care in last 12 months)



Source: EBRI/Greenwald & Associates. Consumer Engagement in Health Care Survey, 2015.

^aTraditional = Health plan with no deductible or <\$1,300 (individual), <\$2,600 (family) in 2015.

^bHDHP = High-deductible health plan with deductible \$1,300+ (individual), \$2,600 (family), not HSA-eligible in 2015.

^cCDHP = Consumer-driven health plan with deductible \$1,330+ (individual), \$2,600+ (family), with HRA, HSA, or HSA-eligible in 2015.

*Difference between HDHP/CDHP and Traditional is statistically significant at the $p \leq 0.05$ or better.

- Administrative burden.** The fact that most consumers do not have a good grasp of health insurance — specifically cost-sharing — creates confusion and misunderstanding, and imposes an administrative burden on provider offices, who must often explain features of health coverage, deal with patient requests for information about prices and costs, and deal with patients who are surprised and dismayed by unexpected bills. In addition, a growing share of billings is now the responsibility of the patient, rather than the insurer. One report estimated that from 2011 to 2014, the number of payments due directly from consumers to health care providers, rather than through insurers, nearly tripled.³⁹ This has required medical practices to strengthen front-end collections, as the likelihood of collecting amounts due from patients drops significantly if payment is not secured before or at the point of service.⁴⁰

³⁹(InstaMed, 2014)

⁴⁰(Committee on Child Health Financing, 2012; Larch, 2012; Ciletti, 2014; Blanchfield et al., 2010)

- **Financial risk for providers.** As noted above, many insured patients do not have the financial resources to pay their deductibles and other forms of cost-sharing. When patients are unable to afford their deductibles, copayments or coinsurance, physicians incur bad debt. Anecdotally, hospitals and physicians report that high deductibles and other forms of cost-sharing are resulting in growing bad debt,^{41,42} as well as the corresponding need to collect payments at the point of service.⁴³ Though academic research on this problem is scant, the medical industry trade press has a growing number of stories about this problem and tips for collections. One 2014 study highlighted the inverse problem: concerns about lower billings and receivables because patients with HDHPs might reduce their use of care or substitute services provided by lower-cost providers, such as advanced practitioners working in retail clinics.⁴⁴
- **Bad debt:** In addition, many physicians and other providers who were optimistic that the ACA would reduce bad debt by reducing the number of people without insurance have expressed disappointment in the corresponding rise in health plans with deductibles that many people cannot afford.⁴⁵

The Lack of Readily Available Information on Prices Impedes Whatever Ability Consumers Might Have to Be “Prudent Purchasers”

As noted earlier, many economists and policymakers believe that cost-sharing can give incentives to consumers and patients to be more “prudent purchasers” of medical care. As a result, proponents believe that cost-sharing can be an important tool for moderating health care spending and improving quality — particularly when supported by more available and better price information.

Massachusetts has enacted a variety of laws that require health plans and providers to make price information available to consumers. These include requiring health plans to provide members with timely estimates of out-of-pocket costs for specific services and requiring providers and payers to disclose sufficient fee information to estimate out-of-pocket costs.⁴⁶ State law also requires the creation of a consumer website, which is under development by the Center for Health Information and Analysis. Most major health plans in Massachusetts offer their members cost calculators.⁴⁷

Even with a variety of transparency efforts underway, research studies generally find that patients currently have limited useful information readily available to help them become informed consumers,⁴⁸ and most do not use it when it is available. Recent studies in Massachusetts by Health Care for All and the Pioneer Institute both found that it remains challenging for consumers in Massachusetts to obtain price information.⁴⁹ A 2016 survey by Mass Insight in Massachusetts found that consumer awareness and use of comparative cost and quality information was generally limited. Only 25% of those surveyed reported that they asked for price and quality information from either their health care provider or health plan before having a medical procedure (which was a slight increase from 17% in the same survey in 2015). Only 26% of those surveyed were aware of any websites in Massachusetts

⁴¹(Unger and O’Donnell, 2015)

⁴²(Bartlett, 2017)

⁴³(Andrews, 2016)

⁴⁴(Heenan, 2014)

⁴⁵(Lauerman, 2016)

⁴⁶See MGL, Chapter 1760, MGL Chapter 111, section 228.

⁴⁷See, for example: Harvard Pilgrim Health Care’s Now iKnow tool; Fallon Health’s Fallon SmartShopper tool; and Tufts Health Plan’s EmpowerMe.

⁴⁸(Evans, 2015)

⁴⁹(Health Care for All, 2015) and (Pioneer Institute, 2015)

that consumers could use to obtain information on the cost and quality of medical services — a 12 percentage point decline from 2015.⁵⁰

Even when information on prices is available to encourage patients to “shop” for lower-priced services, the impact has been fairly limited so far. Research suggests that consumers want price information that is tailored to their own out-of-pocket expenses and specific to an entire episode of care rather than each individual service.⁵¹ So far, consumers seem more likely to use price data to search for and use services that are the least complex and most commodified (e.g., primary care office visits, labs, and imaging).⁵² Services that are more complicated, and generally more costly, are seen by consumers as more difficult to shop for and compare, even when they might have time and financial incentives to do so. The most “activated” patients — those most likely to use price data — are those with high levels of cost-sharing, those with cost-conscious benefit designs (e.g., reference-pricing), and those with easily “shoppable” conditions who are looking for elective procedures or low-complexity, routine procedures.⁵³

Further, the possibility that increased transparency could have significant positive effects on spending and quality runs counter to research generated by policy experts. So far, most research finds no evidence of overall spending reductions when transparency tools are offered. In fact, a recent study of the experience of two employers found that outpatient spending **increased** among employees who used a newly introduced transparency tool (and that the tools were used by very few employees).⁵⁴ This is consistent with behavioral economics studies that have consistently shown that individuals use prices as a measure of quality, and consequently equate higher prices with higher quality: the more expensive an item, the better we think it is.^{55,56} Some economists have expressed concerns that greater price transparency may also have the perverse effect of increasing average prices by making lower-priced providers aware of price differentials; as a result, lower-priced providers may raise their prices and seek higher rates of payment from health plans.⁵⁷

While the recent report from the Special Commission on Provider Price Variation supported the trends towards price and quality transparency and better consumer information, the members of the Commission had varying beliefs about the impact of these tools so far, and in the future. The report was appropriately guarded in its assessment of the potential of these mechanisms to significantly reduce medical costs, price variation, or out-of-pocket costs for consumers.⁵⁸

⁵⁰(Mass Insight, April 2016)

⁵¹(Yegian et al., 2013)

⁵²(Whaley, 2014)

⁵³(Yegian et al., 2013) Reference pricing is a payment method in which the employer or insurer sets a limit on the amount that it will pay for a specific medical service, and the patient must pay the difference in price if they obtain care that is more expensive. See for example: <http://healthaffairs.org/blog/2015/07/07/appropriate-use-of-reference-pricing-can-increase-value>

⁵⁴(Desai, Hatfield, and Hicks, 2016)

⁵⁵(Sinaiko and Rosenthal, 2011; Cutler and Dafny, 2011)

⁵⁶See for example: <https://www.gsb.stanford.edu/insights/behavioral-impact-higher-price>

⁵⁷(Cutler and Dafny, 2011)

⁵⁸Final Report of the Special Commission on Provider Price Variation, Chapter 5 (March 2017)

The Changing Political and Regulatory Environment Will Lead to Higher Levels of Cost-Sharing

Despite the negative effects on patients and physicians of more significant cost-sharing in health coverage, the current political environment will likely encourage, and even accelerate, this trend. President Trump and the Republican leadership in Congress have committed to repealing and replacing the Affordable Care Act and made this a legislative priority. At the time of this report, the legislative situation is fluid. Given the rapid pace of change, readers are encouraged to check the MMS website for the latest details on the Federal and state level.

OPTIONS FOR ADVOCACY AND POLICY ACTION BY THE MMS

The growth of HDHPs and other forms of cost-sharing will continue to have significant effects on patient health and financial security. Several options for potential advocacy and policy action by the MMS are outlined below.

Support the Continuation of State Health Reform Provisions — Including the Massachusetts Individual Mandate, the State’s Minimum Creditable Coverage Standards, and the ConnectorCare Program — in the Face of any Federal Health Reform Changes

If significant changes are made to the ACA, the voice of the MMS on behalf of patients will be critical, particularly as the state makes politically and fiscally difficult decisions about how best to preserve and protect health coverage for residents of the Commonwealth. **The MMS is already active on this front.**

The MMS is already a member of the Massachusetts Coalition for Coverage and Care, a broad-based and diverse group of organizations that are working together to preserve and improve access and affordability of health insurance coverage in Massachusetts, and to protect the gains in access, health, and health equity that have resulted from near universal coverage in the state. With sufficient political will and support, Massachusetts can withstand some of the effects of proposed changes to the ACA that would reduce coverage and increase cost-sharing in private health insurance plans.⁵⁹ Specific provisions in state law that are important include:

- **The state’s individual mandate:** This provision of the state’s 2006 health coverage law, Chapter 58, has remained in effect, and coordinates with the federal individual mandate enacted through the ACA. If the federal individual mandate is eliminated, preserving the state’s mandate will help maintain the state’s overall high level of coverage and keep health coverage more affordable for many groups, including older people.
- **The state’s minimum creditable coverage (MCC) standards:** The MCC standards and state individual mandate work in tandem: In order to meet the state’s individual mandate requirement, Massachusetts residents must have coverage that meets MCC standards, including those with high-deductible health plans. Among the important provisions of MCC that relate to cost-sharing are limits on annual deductibles and out-of-pocket costs for covered services, requirements that certain services be included, and provisions that regular doctor visits and check-ups must be covered before any deductible. (See *Appendix 6*.) The MCC standards are particularly essential to ensuring that the coverage offered by self-funded employers meets the requirements of the individual mandate because the state is not able to regulate these policies directly. Although the initial AHCA legislation preserved the ACA’s minimum benefit standards, many observers believe that these so-called “Essential Health Benefits” may be changed — likely reduced — or delegated to each state to evaluate and decide.

⁵⁹This report does not address the critical need to protect MassHealth coverage because cost-sharing is minimal in the Medicaid program.

- **Support continuation of ConnectorCare, including current subsidies and coverage:** The ConnectorCare program provides subsidized health coverage to individuals with incomes up to 300% FPL who are not eligible for MassHealth and do not have affordable employer sponsored coverage available to them. ConnectorCare coverage is more affordable and has lower levels of cost-sharing than the subsidized coverage available under the ACA to individuals with comparable incomes (including no deductibles and lower out-of-pocket maximums). Cost-sharing also varies by income. The state provides additional financial support to the program, beyond the funding from the federal government, in order to maintain the benefits and subsidies at this level. Unless this support is maintained, and perhaps enhanced, any replacement of the federal subsidies and required benefits will lead to more expensive and less comprehensive coverage for people currently covered by the ConnectorCare program.

Encourage Insurance Plan Designs That Feature More Nuanced Cost-Sharing Mechanisms

The imperative to find ways to make health insurance affordable will not abate, particularly for people with moderate incomes. However, cost-sharing in its current form is a blunt instrument for reducing premiums. As noted above, deductibles, coinsurance, and copayments do not generally vary by the enrollee's income (other than in the ConnectorCare program) or by the type of service (other than the ACA's requirement that certain preventive services be covered without cost-sharing mentioned earlier). The MMS should continue to play a leadership role in advocating for the development of more sophisticated forms of cost-sharing (beginning, perhaps, with the health insurance it offers to MMS employees and their families). These might include provisions graduated by value of services, patients' pre-existing conditions, or enrollee income level:

- **Reducing or eliminating cost-sharing for high-value services:** This method of targeting essential services is akin to the exemption of preventive services established by the ACA. Often referred to as "value-based insurance design" (VBID), this approach is being adopted by a growing number of employers and was recently launched as an initiative in the Medicare Advantage program. (Blue Cross Blue Shield of Massachusetts and Tufts Health Plan are both participating in the Medicare initiative.)⁶⁰ VBID is also being explored by the Massachusetts Health Connector as a plan design feature to be encouraged, and possibly required, in the insurance products offered on the state's exchange marketplace. The MMS has already adopted a policy on VBID (See Appendix 7), which provides a strong foundation from which it can continue to advocate for sound policy on the issue.
- **Tailoring cost-sharing for patients with specific chronic health conditions** (e.g., diabetes) to reduce or eliminate copayments for high-value services that are particularly important for these patients.⁶¹
- **Encouraging employers to develop health plans that vary cost-sharing based on employee income.** This could include lower deductibles for employees with lower incomes; cost-sharing reimbursement programs, which would reimburse employees — based on income — for cost-sharing amounts that exceeded certain limits.

⁶⁰See <https://innovation.cms.gov/initiatives/vbid>

⁶¹(Chernew et al., 2007)

The recent report from the Special Commission on Provider Price Variation⁶² makes a number of excellent recommendations that are relevant to the issues raised in this report, including tiered network designs, VBID, and price transparency. We encourage the MMS to review the report to identify further opportunities for policy development and advocacy.

Encourage state government to monitor more closely the growth of HDHPs and other forms of cost-sharing in health plans, and to assess, in particular, the impact of HDHPs and other forms of cost-sharing on consumer access to care, health outcomes, medical debt, and debt for providers:

The growth of HDHPs and other forms of significant cost-sharing is one of the most significant trends in health care over the past decade, although it has not received as much attention as rising premiums or expansions of coverage. The Center for Health Information and Analysis has been tracking the increase in HDHPs, but it would be useful if it would report more detailed data in some areas (e.g., prevalence of HDHPs in each geographic region of the state, more nuanced tracking of deductible levels and other forms of cost-sharing). In addition, the state's periodic health insurance survey could be amended to collect additional data to allow policymakers, advocates, and providers to better understand the effect of cost-sharing on access to care, health outcomes, affordability, and medical debt, particularly by income and health status. The impact of increased cost-sharing on providers has not been a focus of attention by CHIA or the Health Policy Commission, but deserves attention.

Work to lower the burden of health care costs on patients by encouraging and improving conversations between physicians and patients about costs, and by continuing to be a strong voice of concern for the adverse effects of cost-sharing on patient health, particularly for the most vulnerable, and of the need to find other, more equitable and durable means of controlling increases in medical costs: Cost-sharing is a blunt tool with a simple, effective, and predictable impact on reducing insurance premium rates. However, the MMS is concerned about the adverse effects of cost-sharing on use and access to medical care, financial security, and health of the most vulnerable patients, and about the limits of more "transparency" as a means to mitigate the negative consequences of cost-sharing.

But despite the limits of transparency, physicians and patients need to have more frequent, and more effective, conversations about out-of-pocket costs. Doctors are uniquely able to help their patients understand treatment options and to adapt care to meet the clinical and financial situation of the patient. The MMS can play a vital role in educating physicians about the importance of cost conversations and in helping doctors feel better equipped to have these discussions. With an expected September 2017, launch for CHIA's consumer website, better price and quality information will likely be available to consumers. The time could be right for the MMS to undertake an education and engagement campaign to identify and disseminate strategies and best practices that physicians can use to have cost conversations with their patients, including how to help patients feel comfortable raising cost concerns with them.

⁶²www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/ppv-report-final.pdf

At the same time, the MMS should continue to use its considerable stature and power to raise concerns about these issues on behalf of patients and its physician members. But raising concerns is not sufficient: At the end of the day, HDHPs and other forms of significant cost-sharing are merely symptoms of the continuing inability of Massachusetts, and the nation, to adopt other means to reduce health care spending. The MMS must combine its concerns about cost-sharing with strong and active support for other approaches, as it has with Accountable Care Organizations and Alternative Payment Arrangements that would moderate health care costs. Unless it does, health care costs and insurance premiums will continue to increase, as will the prevalence of high deductible health plans and other forms of significant consumer cost-sharing. These trends will continue to undermine the positive effects of the state's successful efforts to expand health coverage on patients' health and financial security.

CONCLUSIONS

Concerns are likely to increase with regards to HDHPs assuming significant policy changes ahead on the federal and perhaps state levels. In addition, continuing escalation of medical costs makes it likely that more and more employers and individuals will purchase these types of health plans.

The MMS should continue to use its voice and influence at both the state and federal levels to raise concerns about the adverse impact of HDHPs and other significant cost-sharing on patient health and financial security, and to advocate for actions including:

- Support for the continuation of state health reform provisions — including the Massachusetts individual mandate, the state's minimum creditable coverage standards, and the ConnectorCare program — in the face of any federal health reform changes
- Encourage development of insurance plan designs that feature more nuanced cost-sharing mechanisms including value-based insurance design
- Encourage state government to monitor more closely the growth of HDHPs and other forms of cost-sharing in health plans, and to assess, in particular, the impact of HDHPs and other forms of cost-sharing on consumer access to care, health outcomes, medical debt, and debt for providers
- Work to lower the burden of health care costs on patients by encouraging and improving conversations between physicians and patients about costs, and by continuing to be a strong voice of concern for the adverse effects of cost-sharing on patient health, particularly for the most vulnerable, and of the need to find other, more equitable and durable means of controlling increases in medical costs

The directives from Report A-16 B-2 are completed.

APPENDICES

Appendix 1

A-16 Adopted Report Directives for CQMP Late Informational Report A-17- 31 [A-16 B-2]

Title: Assessment of the Impact of High-Deductible Health Plans on Patient Health and the Financial Impact on Medical Practices

At A-16, the House of Delegates (HOD) adopted as amended Report A-16 B-2, *Assessment of the Impact of High-Deductible Health Plans on Patient Health and the Financial Impact on Medical Practices*. The Board of Trustees (BOT) referred these directives to the Committee on the Quality of Medical Practice for implementation and an informational report to the HOD.

The report directs:

1. That the MMS, in order to devise advocacy regarding plans with increased cost-sharing (including, but not limited to, copayments, co-insurance, high-deductibles, and other out-of-pocket expenses), shall research and explore standards for improving patient education and policies regarding out-of-pocket costs for preventive and diagnostic services in these health plans. (D)
2. That the MMS, in order to devise advocacy regarding plans with increased cost-sharing (including, but not limited to, copayments, co-insurance, high-deductibles, and other out-of-pocket expenses) shall research and explore health care delivery systems, cost transparency, and payment models for these health plans, in order to (a) improve the ability to collect patient payments and (b) engage patient compliance with necessary medical care. (D)

Appendix 2

Glossary of Cost-Sharing Terminology

- **Deductible:** A deductible is a dollar amount that you must pay before the health plan starts to pay for a covered service. Some health plans may have a separate prescription drug deductible. The deductible amount does not include the premiums that you pay. For example, you may pay a \$1,000 deductible toward your health care services each year before the plan pays any benefits. A health plan may have a deductible for a calendar year (from January 1 to December 31) or for a plan year (from the policy effective date to one year later). If your plan has a deductible, be sure to know the time period.
- **Copayment:** A copayment is a fixed dollar amount paid by you directly to a doctor, hospital, pharmacy or other health care provider at the time that you get a service. For example, you may pay \$20 toward a covered office visit and the plan pays the rest. A plan may have different copayments for different types of services. For example, the copayment for a primary care visit may be \$20 and the copayment for an emergency room visit may be \$100.
- **Coinsurance:** Coinsurance is a percentage of the allowed charge that you will pay for a covered service after any copayments. For example, you may pay 20% of the cost of a covered office visit and the plan pays the rest.
- **Benefit Limit:** Some plans have a limit on the number of visits or dollars allowed for specified covered service. For example, the plan may allow only \$350 for scalp hair prosthesis (wig) and you will pay for any cost beyond the \$350 limit.
- **Exclusion:** Exclusions are listed services for which there is no benefit. For example, the company may exclude (not pay for) cosmetic surgery and you will pay for the entire cost of the service.
- **Out-of-Pocket Maximum:** An out-of-pocket maximum is a cap on your cost-sharing for a year. Once your cost-share amounts have equaled the out-of-pocket maximum, the health plan will pay 100% of the covered services for the rest of that year.
- **Usual and Customary Charge (“U/C”) /Usual, Customary and Reasonable (“UCR”):** The amount that a carrier determines to be the usual fee charged by similar health care providers in the same geographic area. Some health plans may limit coverage of certain providers to the usual and customary amount.

Source: Health Care Guide. Available at: www.mass.gov/ocabr/docs/doi/consumer/healthlists/healthcareguide.pdf

Appendix 3

IRS Standards for a Qualified HDHP

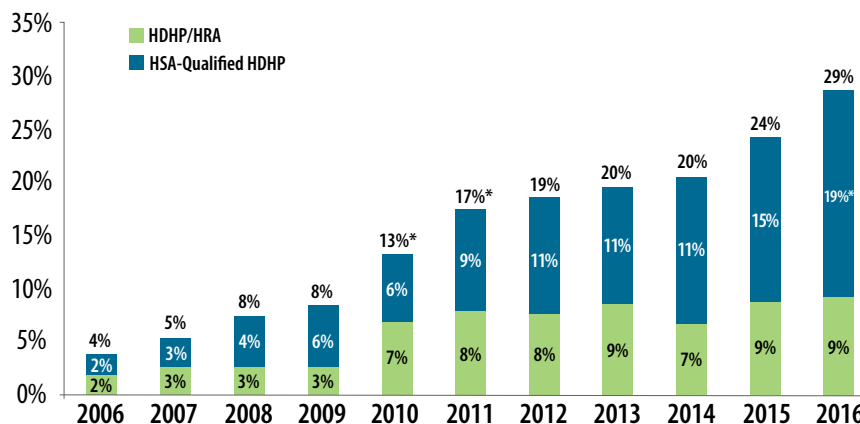
Year	Minimum deductible (single)	Minimum deductible (family)	Maximum out-of-pocket (single)	Maximum out-of-pocket (family)
2009	\$1,150	\$2,300	\$5,800	\$11,600
2010	\$1,200	\$2,400	\$5,950	\$11,900
2011	\$1,200	\$2,400	\$5,950	\$11,900
2012	\$1,200	\$2,400	\$6,050	\$12,100
2013	\$1,250	\$2,500	\$6,250	\$12,500
2014	\$1,250	\$2,500	\$6,350	\$12,700
2015	\$1,300	\$2,600	\$6,450	\$12,900
2016	\$1,300	\$2,600	\$6,550	\$13,100

Source: US Department of Treasury, Health Savings Account. Available at: <https://www.treasury.gov/resource-center/faqs/Taxes/Pages/Health-Savings-Accounts.aspx>. <https://www.towerswatson.com/en-US/Insights/Newsletters/Americas/insider/2016/05/irs-announces-2017-limits-for-hsas-and-hdhp>

Appendix 4-1

Background Information on National Trends in Deductibles and Cost-Sharing (from Kaiser Family Foundation)

PERCENTAGE OF COVERED WORKERS ENROLLED IN AN HDHP/HRA OR HSA-QUALIFIED HDHP, 2006–2016



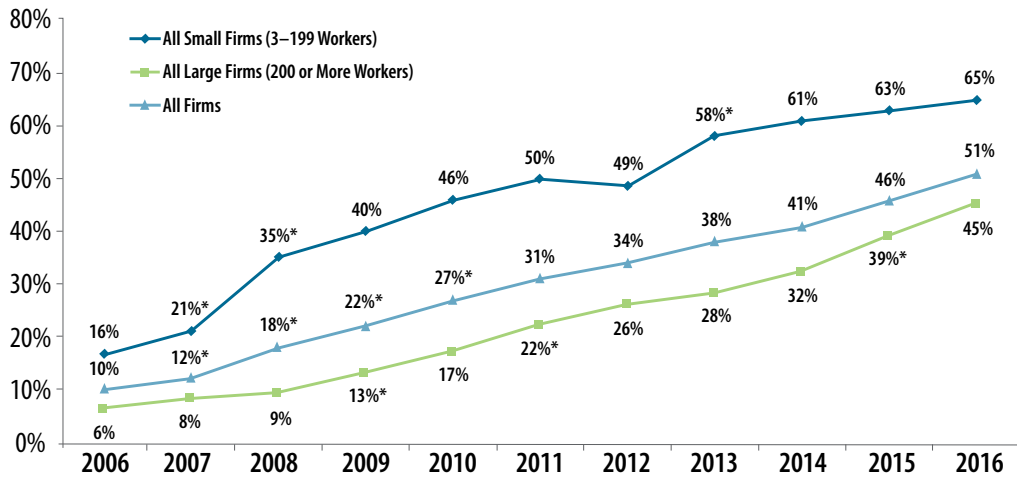
*Estimate is statistically different from estimate for the previous year shown (p < .05).

Note: Covered workers enrolled in an HDHP/SO are enrolled in either an HDHP/HRA or HSA-Qualified HDHP. For more information, see the Survey Methods section. The percentages of covered workers enrolled in an HDHP/SO may not equal the sum of HDHP/HRA and HSA-Qualified HDHP enrollment estimates due to rounding.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006–2016.

Appendix 4-2

PERCENTAGE OF COVERED EMPLOYEES IN THE US ENROLLED IN A PLAN WITH GENERAL ANNUAL DEDUCTIBLE OF \$1,000 OR MORE FOR SINGLE COVERAGE, BY FIRM SIZE, 2006–2016



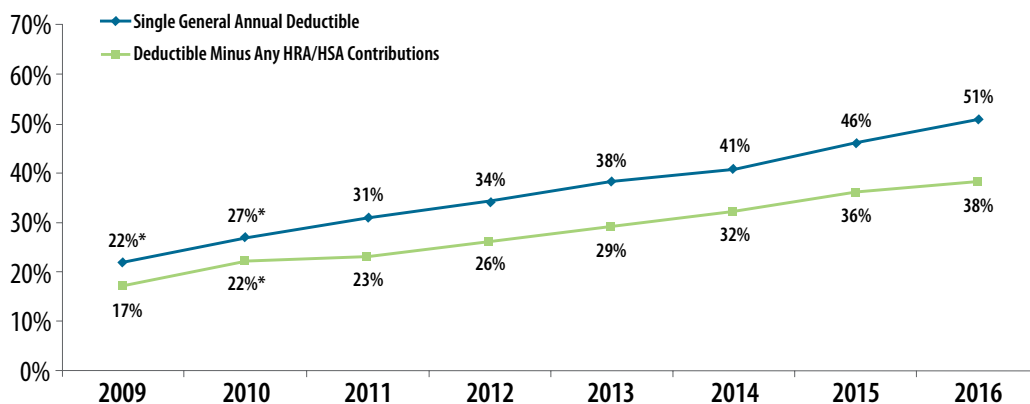
*Estimate is statistically different from estimate for the previous year shown ($p < .05$).

Note: These estimates include workers enrolled in HDHP/SO and other plan types. Average general annual health plan deductibles for PPOs, POS plans, and HDHP/SOs are for in-network services.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006–2016.

Appendix 4-3

PERCENTAGE OF COVERED WORKERS ENROLLED IN A PLAN WHERE THE SINGLE COVERAGE DEDUCTIBLE AND OUT-OF-POCKET LIABILITY AFTER HRA/HSA CONTRIBUTIONS IS \$1,000 OR MORE, 2009–2016



*Estimate is statistically different from estimate for the previous year shown ($p < .05$).

Note: These estimates include workers enrolled in HDHP/SO and other plan types. Account contributions include an employer’s contribution to an HSA or HRA. The net liability for covered workers enrolled in a plan with an HSA or HRA is calculated by subtracting the account contribution from the single coverage deductible. Average general annual health plan deductibles for PPOs, POS plans, and HDHP/SOs are for in-network services. HRAs are national accounts, and employers are not required to actually transfer funds until an employee incurs expenses.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006–2016.

COST-SHARING TRENDS IN THE US BEYOND DEDUCTIBLES: 2016				
	% Covered Employees Facing a Copayment	Average In-Network Copayment	% Covered Employees Facing Coinsurance	Average In-Network Coinsurance
Primary Care	67%	\$24	25%	18%
Specialty Care	66%	\$38	26%	19%

Source: Kaiser Family Foundation. (2016). Available at: <http://kff.org/report-section/ehbs-2016-summary-of-findings>.

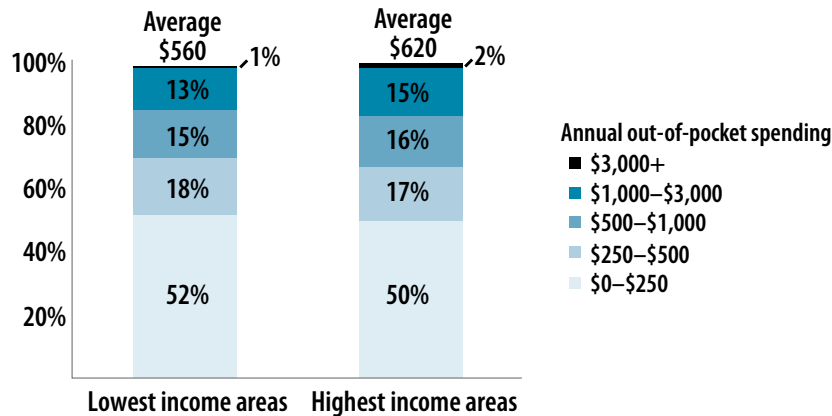
Appendix 4-4

Average Deductible for Covered Employees in the US with a General Annual Health Deductible (Single Coverage), by Plan Type and Region	
	Single Coverage
HMO	
Northeast	\$997
Midwest	819
South	1,451*
West	598*
ALL REGIONS	\$917
PPO	
Northeast	\$1,067
Midwest	948
South	1,024
West	1,132
ALL REGIONS	\$1,028
POS	
Northeast	\$1,662
Midwest	1,524
South	1,904
West	NSD
ALL REGIONS	\$1,737
HDHP/SO	
Northeast	\$2,156
Midwest	2,272
South	2,071
West	2,380
ALL REGIONS	\$2,199
ALL REGIONS	
Northeast	\$1,569
Midwest	2,272
South	2,071
West	2,380
ALL REGIONS	\$2,199

*Estimate is statistically different within the plan type from estimate for all other firms not in the indicated region (p < .05).
 NSD: Not Sufficient Data.
 Note: Average general annual health plan deductibles for PPOs, POS plans, and HDHP/SOs are for in-network services.
 Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2016.

Appendix 5

OUT-OF-POCKET HEALTH CARE SPENDING IS RELATIVELY SIMILAR FOR RESIDENTS IN LOW AND HIGH INCOME AREAS
Percent of residents, by annual out-of-pocket spending, 2014



Source: MA Health Policy Commission (2017), p. 19.

Appendix 6

Minimum Creditable Coverage in Massachusetts

In Massachusetts, residents who are age 18 or older are required to have health insurance under the individual mandate. Health insurance must have certain basic benefits, called “minimum creditable coverage,” including the following standards:

- Covers prescription drugs (may have deductible of up to \$250 per individual/\$500 per family)
- Covers regular doctor visits and check-ups before any deductible
- Caps any annual deductible at \$2,000 for an individual or \$4,000 for a family
- If you have a deductible or co-insurance on core services, caps out-of-pocket spending for health services at \$5,000 for an individual or \$10,000 for a family each year
- Has no cap on total benefits for a sickness or for each year
- Has no cap on spending for a stay in the hospital

SOURCES

MA Consumer Information Guide. Available at: www.mass.gov/ocabr/docs/doi/consumer/healthlists/healthcareguide.pdf

Murphy, J. 2010. Bulletin 2010-07 Requirements for Disclosure of Minimum Creditable Coverage. Available at: www.mass.gov/ocabr/government/oca-agencies/doi-lp/bulletin-2010-07-requirements-for-disclosure.html

Appendix 7

MMS Policy on Value-Based Insurance Design

Value-Based Insurance Design — The MMS will monitor third-party payers who use targeted benefit design, whereby patient cost-sharing requirements are determined based on the clinical value of a health care service or treatment. Consideration should be given to further tailoring cost-sharing requirements to patient income and other factors known to impact compliance. (D)

The MMS supports flexibility in the design and implementation of value-based insurance design (VBID) programs, consistent with the following principles:

- a. Value reflects the clinical benefit gained relative to the money spent. VBID explicitly considers the clinical benefit of a given service or treatment when determining cost-sharing structures or other benefit design elements.
- b. Practicing physicians should be actively involved in the development of VBID programs.
- c. High-quality, evidence-based data must be used to support the development of any targeted benefit design. Treatments or services for which there is insufficient or inconclusive evidence about their clinical value should not be included in any targeted benefit design elements of a health plan.
- d. The methodology and criteria used to determine high- or low-value services or treatments must be transparent and easily accessible to physicians and patients.
- e. Coverage and cost-sharing policies must be transparent and easily accessible to physicians and patients. Educational materials should be made available to help patients and physicians understand the incentives and disincentives built into the plan design.
- f. VBID should not restrict access to patient care. Designs can use incentives and disincentives to target specific services or treatments, but should not otherwise limit patient care choices. Where feasible and appropriate, VBID should take patient preferences into account.
- g. Physicians retain the ultimate responsibility for directing the care of their patients. Plan designs that include higher cost-sharing or other disincentives to obtaining services designated as low-value must include an appeals process to enable patients to secure care recommended by their physicians, without incurring cost sharing penalties.
- h. Plan sponsors should ensure adequate resource capabilities to ensure effective implementation and ongoing evaluation of the plan designs they choose. Procedures must be in place to ensure VBID coverage rules are updated in accordance with evolving evidence. (HP)

MMS House of Delegates, 12/7/13

References

- Andrews, M. (December 7, 2016). Doctors and hospitals tell patients: Show us the money before treatment. Retrieved from KPCC: www.scp.org/news/2016/12/07/66959/doctors-and-hospitals-tell-patients-show-us-the-mo.
- Anthony, B. (June 2015). *Massachusetts Hospitals Weak on Price Transparency*. Pioneer Institute.
- Aron-Dine, A., and Park, E. (2017, February 15). Trump administration's new health rule would reduce tax credits, raise costs, for millions of moderate-income families. Retrieved from Center on Budget and Policy Priorities: www.cbpp.org/research/health/trump-administrations-new-health-rule-would-reduce-tax-credits-raise-costs-for#_ftn2.
- Baicker, K., Dow, W. H., and Wolfson, J. (2007). Lowering the barriers to consumer-directed health care: responding to concerns. *Health Affairs*, 26(5), 1328–1332.
- Baicker, K., and Goldman, D. (2011). Patient cost-sharing and healthcare spending growth. *The Journal of Economic Perspectives*, 25(2), 47–68.
- Bartlett, J. (February 13, 2017). High-deductible health plans hurting hospitals' bottom line. Retrieved from *Boston Business Journal*: www.bizjournals.com/boston/news/2017/02/13/high-deductible-health-plans-hurting-hospitals.html.
- Beeuwkes, B. M., Haviland, A. M., McDevitt, R., and Sood, N. (2011). Healthcare spending and preventive care in high-deductible and consumer-directed health plans. *The American Journal of Managed Care*, 17(3), 222–230.
- Berenson, R. A., Delbanco, S. F., Murray, R., and Upadhyay, D. K. (2016). Matching payment methods with benefit designs to support delivery reforms. Available at: www.urban.org/sites/default/files/publication/80306/2000778-Matching-Payment-Methods-with-Benefit-Designs-to-Support-Delivery-Reforms.pdf.
- Bill S.499. (January 23, 2017). Retrieved from The 190th General Court of the Commonwealth of Massachusetts: <https://malegislature.gov/Bills/190/SD9390>.
- Blanchfield, B. B., Heffernan, J. L., Osgood, B., Sheehan, R. R., and Meyer, G. S. (2010). Saving billions of dollars — and physicians' time — by streamlining billing practices. *Health Affairs*, 10–1377.
- Blue Cross Blue Shield of Massachusetts Foundation and Urban Institute. (2016, March 23). *2015 Massachusetts Health Reform Survey*. Retrieved from <http://bluecrossfoundation.org/publication/2015-massachusetts-health-reform-survey>.
- Blustein, J. (1995). Medicare coverage, supplemental insurance, and the use of mammography by older women. *New England Journal of Medicine*, 332(17), 1138–1143.
- Brennan, T., and Reisman, L. (2007). Value-based insurance design and the next generation of consumer-driven health care. *Health Affairs*, 26(2), w204–w207.
- Buntin, M. B., Damberg, C., Haviland, A., Kapur, K., Lurie, N., McDevitt, R., and Marquis, M. S. (2006). Consumer-directed health care: early evidence about effects on cost and quality. *Health Affairs*, 25(6), w516–w530.
- Center for Health Information and Analysis. (2016). *Annual Report on the Performance of the Massachusetts Health Care System: 2016*. Retrieved from www.chiamass.gov/annual-report.
- Center for Health Information and Analysis (2015), High Deductible Health Plan Membership. *Annual Report Series 2015: Performance of the Massachusetts Health Care System*.
- Choudhry, N. K., Fischer, M. A., Avorn, J., Schneeweiss, S., Solomon, D. H., Berman, C., and Mahoney, J. J. (2010). At Pitney Bowes, value-based insurance design cut copayments and increased drug adherence. *Health Affairs*, 29(11), 1995–2001.
- Ciletti, M. (2014). The new normal: helping patients navigate the changing insurance landscape. *Fam Pract Manag*, 21(3), 22–27.
- Claxton, G., Gabel, J., Gil, I., and Pickreign, J. (2005). What high-deductible plans look like: findings from a national survey of employers, 2005. *Health Affairs*, 24, W5.
- Claxton, G., Rae, M., and Panchal, N. (2015). *Consumer Assets and Patient Cost-Sharing*. Kaiser Family Foundation, February.
- Claxton, G., Rae, M., Panchal, N., Damico, A., Whitmore, H., Bostick, N., and Kenward, K. (2013). Health benefits in 2013: moderate premium increases in employer-sponsored plans. *Health Affairs*, 32(9), 1667–1676.
- Committee on Child Health Financing. (2014). High-deductible health plans. *Pediatrics*, 133(5), e1461–e1470.

- Cox, C., Claxton, G., and Levitt, L. (March 10, 2017). *How Affordable Care Act Repeal and Replace Plans Might Shift Health Insurance Tax Credits*. Retrieved from Kaiser Family Foundation: <http://kff.org/health-reform/issue-brief/how-affordable-care-act-repeal-and-replace-plans-might-shift-health-insurance-tax-credits>.
- Cutler, D., and Dafny, L. (2011). Designing transparency systems for medical care prices. *New England Journal of Medicine*, 364(10), 894–895.
- Davis, K., Doty, M. M., and Ho, A. (2005). How high is too high? Implications of high-deductible health plans. *The Commonwealth Fund*, 20.
- Desai, S., Hatfield, L. and Hicks, A. (2016). Association Between Availability of a Price Transparency Tool and Outpatient Spending. <http://jamanetwork.com/journals/jama/fullarticle/2518264>.
- Evans, M. (June 2015). Prices hard to come by for Massachusetts patients despite transparency law. Retrieved from Modern Healthcare: www.modernhealthcare.com/article/20150624/NEWS/150629939.
- Fendrick, A. M., and Chernew, M. E. (2007). Value-based insurance design: a “clinically sensitive, fiscally responsible” approach to mitigate the adverse clinical effects of high-deductible consumer-directed health plans.
- Final Report of the Massachusetts Special Commission on Provider Price Variation. (March 2017).
- Fronstin, P., and Collins, S. R. (2005). Early experience with high-deductible and consumer-driven health plans: findings from the EBRI/Commonwealth Fund Consumerism in Health Care Survey.
- Fronstin, P., and Collins, S. R. (2006). The 2nd Annual EBRI/Commonwealth Fund Consumerism in Health Care Survey, 2006: early experience with high-deductible and consumer-driven health plans.
- Fronstin, P., and Elmlinger, A. (2015). Findings from the 2015 EBRI/Greenwald and Associates Consumer Engagement in Health Care Survey.
- Gabel, J. R., Whitmore, H., and Pickreign, J. (2008). Report from Massachusetts: employers largely support health care reform, and few signs of crowd-out appear. *Health Affairs*, 27(1), w13–w23.
- Galbraith, A. A., Ross-Degnan, D., Soumerai, S. B., Rosenthal, M. B., Gay, C., and Lieu, T. A. (2011). Nearly half of families in high-deductible health plans whose members have chronic conditions face substantial financial burden. *Health Affairs*, 30(2), 322–331.
- Galbraith, A. A., Soumerai, S. B., Ross-Degnan, D., Rosenthal, M. B., Gay, C., and Lieu, T. A. (2012). Delayed and forgone care for families with chronic conditions in high-deductible health plans. *Journal of General Internal Medicine*, 27(9), 1105–1111.
- Haviland, A. M., Sood, N., McDevitt, R., and Marquis, M. S. (2011). How do consumer-directed health plans affect vulnerable populations? *Health Policy*, 14(2), 3.
- Health Care for All. Consumer Cost Transparency Report. (2015). Available at: <https://www.hcfama.org/updates/hcfas-report-card-insurers-consumer-costs-web-sites>.
- Heenan, K. (2014). The impact of high deductible health plans on medical practices. Medical Group Management Association. Available at: www.mgma.com/Libraries/Assets/Practice%20Resources/Publications/Fellow%20Papers/2014/The-Impact-of-High-Deductible-Health-Plans-on-Medical-Practices_2.pdf?ext=.pdf.
- Hibbard, J. H., Greene, J., Sofaer, S., Firminger, K., and Hirsh, J. (2012). An experiment shows that a well-designed report on costs and quality can help consumers choose high-value health care. *Health Affairs*, 31(3), 560–568.
- Hsu, J., Price, M., Brand, R., Ray, G. T., Fireman, B., Newhouse, J. P., and Selby, J. V. (2006). Cost-sharing for emergency care and unfavorable clinical events: findings from the safety and financial ramifications of ED copayments study. *Health Services Research*, 41(5), 1801–1820.
- Hwang, J., and Christensen, C. M. (2008). Disruptive innovation in health care delivery: a framework for business-model innovation. *Health Affairs*, 27(5), 1329–1335.
- Jacobs, P. D., and Claxton, G. (2008). Comparing the assets of uninsured households to cost-sharing under high-deductible health plans. *Health Affairs*, 27(3), w214–w221.
- Jost, T. S., and Hall, M. A. (2005). The role of state regulation in consumer-driven health care. *American Journal of Law and Medicine*, 31(4), 395–418.

- Kaiser Family Foundation. 2016 Employer Health Benefits Survey. (September 14, 2016). Retrieved from <http://kff.org/report-section/ehbs-2016-summary-of-findings>.
- Kozhimannil, K. B., Huskamp, H. A., Graves, A. J., Soumerai, S. B., Ross-Degnan, D., and Wharam, J. F. (2011). High-deductible health plans and costs and utilization of maternity care. *The American Journal of Managed Care*, 17(1), e17–25.
- Kozhimannil, K. B., Law, M. R., Blauer-Peterson, C., Zhang, F., and Wharam, J. F. (2013). The impact of high-deductible health plans on men and women: an analysis of emergency department care. *Medical Care*, 51(8), 639.
- Kullgren, J. T., Galbraith, A. A., Hinrichsen, V. L., Miroshnik, I., Penfold, R. B., Rosenthal, M. B., and Lieu, T. A. (2010). Health care use and decision making among lower-income families in high-deductible health plans. *Archives of Internal Medicine*, 170(21), 1918–1925.
- Larch, S. M. (2012). Patient collection strategies in a high-deductible world. *The Journal of Medical Practice Management: MPM*, 28(1), 37.
- Lauerma, J. (February 23, 2016). *ACA reform has not eliminated bad debt for hospitals*. Retrieved from Physicians for a National Health Program: www.pnhp.org/news/2016/february/aca-reform-has-not-eliminated-bad-debt-for-hospitals.
- Lee, T. H., and Zapert, K. (2005). Do high-deductible health plans threaten quality of care? *New England Journal of Medicine*, 353(12), 1202–1204.
- Lieu, T. A., Solomon, J. L., Sabin, J. E., Kullgren, J. T., Hinrichsen, V. L., and Galbraith, A. A. (2010). Consumer awareness and strategies among families with high-deductible health plans. *Journal of General Internal Medicine*, 25(3), 249–254.
- Long, S. K. (2008). On the road to universal coverage: impacts of reform in Massachusetts at one year. *Health Affairs*, 27(4), w270–w284.
- Mahajan, A. P., and Brook, R. H. (2008). High-Deductible Health Plans and Better Benefit Design. *Annals of Internal Medicine*, 148(9), 704–706.
- Margolis, J., and Pope, C. (2010). *Perspective on patient payment*. MGMA connexion/Medical group Management Association, 10(4), 36–41.
- Mass Insight, April 2016 survey (provided to authors by MMS).
- Massachusetts Health Policy Commission. (February 2017). *Annual Health Care Cost Trends Report 2016*.
- Massachusetts Health Policy Commission. (January 11, 2017). *Select Findings: 2016 Cost Trends Report*.
- McDonough, J. E., Rosman, B., Butt, M., Tucker, L., and Howe, L. K. (2008). Massachusetts health reform implementation: major progress and future challenges. *Health Affairs*, 27(4), w285–w297.
- Muhlestein, D. B., Wilks, C. E., and Richter, J. P. (2013). Limited use of price and quality advertising among American hospitals. *Journal of Medical Internet Research*, 15(8).
- Newhouse, J. P. (2004). Consumer-directed health plans and the RAND Health Insurance Experiment. *Health Affairs*, 23(6), 107–113.
- Parente, S. T., Feldman, R., and Christianson, J. B. (2004). Evaluation of the Effect of a Consumer-Driven Health Plan on Medical Care Expenditures and Utilization. *Health Services Research*, 39(4p2), 1189–1210.
- Pearson, S. D., Schneider, E. C., Kleinman, K. P., Coltin, K. L., and Singer, J. A. (2008). The impact of pay-for-performance on health care quality in Massachusetts, 2001–2003. *Health Affairs*, 27(4), 1167–1176.
- Reddy, S. R., Ross-Degnan, D., Zaslavsky, A. M., Soumerai, S. B., and Wharam, J. F. (2014). Impact of a high-deductible health plan on outpatient visits and associated diagnostic tests. *Medical Care*, 52(1), 86.
- Reed, M., Fung, V., Price, M., Brand, R., Benedetti, N., Derosé, S. F., and Hsu, J. (2009). High-deductible health insurance plans: efforts to sharpen a blunt instrument. *Health Affairs*, 28(4), 1145–1154.
- Reiss, S. K., Ross-Degnan, D., Zhang, F., Soumerai, S. B., Zaslavsky, A. M., and Wharam, J. F. (2011). Effect of switching to a high-deductible health plan on use of chronic medications. *Health Services Research*, 46(5), 1382–1401.
- Robinson, J. C. (2005). Health savings accounts—the ownership society in health care. *New England Journal of Medicine*, 353(12), 1199–1202.

- Rowe, J. W., Brown-Stevenson, T., Downey, R. L., and Newhouse, J. P. (2008). The effect of consumer-directed health plans on the use of preventive and chronic illness services. *Health Affairs*, 27(1), 113–120.
- Sinaiko, A. D., and Rosenthal, M. B. (2011). Increased price transparency in health care—challenges and potential effects. *New England Journal of Medicine*, 364(10), 891–894.
- Sinha, S. (2015). *Accenture: Drowning in Bad Debt*. Available at: https://www.accenture.com/_acnmedia/PDF-11/Accenture-Drowning-in-Bad-Debt.pdf.
- Trivedi, A. N., Rakowski, W., and Ayanian, J. Z. (2008). Effect of cost-sharing on screening mammography in Medicare health plans. *New England Journal of Medicine*, 358(4), 375–383.
- Unger, L., and O'Donnell, J. (January 1, 2015). Dilemma over deductibles: costs crippling middle class. Retrieved from USA Today: www.usatoday.com/story/news/nation/2015/01/01/middle-class-employees-struggle-to-pay-for-care-despite-insurance/19841235.
- Valdez, R. B., Brook, R. H., Rogers, W. H., Ware, J. E., Keeler, E. B., Sherbourne, C. A., and Newhouse, J. P. (1985). Consequences of cost-sharing for children's health. *Pediatrics*, 75(5), 952–961.
- Waters, T. M., Chang, C. F., Cecil, W. T., Kasteridis, P., and Mirvis, D. (2011). Impact of high-deductible health plans on health care utilization and costs. *Health Services Research*, 46(1p1), 155–172.
- Whaley, C., Chafen, J. S., Pinkard, S., Kellerman, G., Bravata, D., Kocher, R., and Sood, N. (2014). Association between availability of health service prices and payments for these services. *JAMA*, 312(16), 1670–1676.
- Wharam, J. F., Galbraith, A. A., Kleinman, K. P., Soumerai, S. B., Ross-Degnan, D., and Landon, B. E. (2008). Cancer screening before and after switching to a high-deductible health plan. *Annals of Internal Medicine*, 148(9), 647–655.
- Wharam, J. F., Graves, A. J., Landon, B. E., Zhang, F., Soumerai, S. B., and Ross-Degnan, D. (2011). Two-year trends in colorectal cancer screening after switch to a high-deductible health plan. *Medical Care*, 49(9), 865–871.
- Wharam, J. F., Landon, B. E., Galbraith, A. A., Kleinman, K. P., Soumerai, S. B., and Ross-Degnan, D. (2007). Emergency department use and subsequent hospitalizations among members of a high-deductible health plan. *JAMA*, 297(10), 1093–1102.
- Wharam, J. F., Zhang, F., Landon, B. E., Soumerai, S. B., and Ross-Degnan, D. (2013). Low-socioeconomic-status enrollees in high-deductible plans reduced high-severity emergency care. *Health Affairs*, 32(8), 1398–1406.
- Wong, M. D., Andersen, R., Sherbourne, C. D., Hays, R. D., and Shapiro, M. F. (2001). Effects of cost-sharing on care seeking and health status: results from the Medical Outcomes Study. *American Journal of Public Health*, 91(11), 1889–1894.
- Yegian, J. M., Dardess, P., Shannon, M., and Carman, K. L. (2013). Engaged patients will need comparative physician-level quality data and information about their out-of-pocket costs. *Health Affairs*, 32(2), 328–337.



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