

Employer-Led Strategies to Improve the Value of Health Spending: A Systematic Review

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Objective: To systematically review studies that evaluated the impact of employer-led efforts in the United States to improve the value of health spending, where employers have implemented changes to their health benefits to reduce costs while improving or maintaining quality. **Methods:** We included all studies of employer-led health benefit strategies that reported outcomes for both employer health spending and employee health outcomes. **Results:** Our search returned 44 studies of employer health benefit changes that included measures of both health spending and quality. The most promising efforts were those that lowered or eliminated cost sharing for primary care or medications for chronic illnesses. High deductible health plans with a savings option appeared less promising. **Conclusions:** More research is needed on the characteristics and contexts in which these benefit changes were implemented, and on actions that address employers' current concerns.

Keywords: employer health costs, health benefits plan, health care cost, quality of health care, systematic review

Over the last century, American politics has been punctuated by calls and concerted efforts to reform the provision of health insurance in the United States. Whether it was the ill-fated Clinton-era Health Security plan or the more recent debates over Medicare For All, one thing has remained constant amidst the tumult: employer-sponsored health insurance. Health policy experts have predicted the demise of employer-provided insurance,¹ and elected officials have called for the total replacement of all private health insurance with a single-payer plan.² Notwithstanding these challenges, employee health benefits continue to be attractive to much of the American public as demonstrated by high levels of satisfaction with employer's

health coverage.³ Even the election of Joseph Biden, Jr. to the presidency can be seen through the appeal of employer-provided health insurance given his platform of continuing and strengthening the Patient Protection and Affordable Care Act (ACA), a law created to improve—not destroy—private health insurance.⁴

Distinct from the political sphere, employers face their own challenges. In 2019, approximately 156 million Americans received employer-sponsored health insurance (49.6% of the population).⁵ Two thirds of these workers were covered under self-insured arrangements where the employer, rather than the insurer, bore the financial risk for health care costs.⁶ These employers—which have grown in number over the past fifteen years and now include many employers with less than 200 workers⁶—play an enormous role in the health insurance marketplace because of the coverage decisions they make on behalf of their respective workforces; choices that impact the lives of millions of people and can have myriad downstream effects. Employers have to determine whether the benefits they offer to their respective employees and their dependents will not only provide high quality care but also offer efficiently priced services for both the employer and the employee.

There is considerable evidence that the value of health care spending in the United States is low: per capita spending on health care is approximately two times as much as other industrialized nations but with similar utilization rates and health outcomes.^{7,8} To improve quality and reduce costs, the movement from fee-for-service to value-based care has been a central component of recent health legislation, including the ACA and the Medicare Access and Children's Health Insurance Program Reauthorization Act. Here value-based care looks to the relationship between quality and cost of care.^{9,10} Value can increase by either improving the quality of services and keeping costs constant or by lowering costs while maintaining quality.¹⁰ There is no established approach for measuring the value of health spending, however, there is agreement that cost and quality should be examined via separate outcome measures.^{10,11} Several initiatives have tested the effectiveness of these changes in public health care programs. However, little-to-no improvements in quality of care have been demonstrated to date.^{12–14}

The implementation of value-based health care has largely been concentrated in the public sector, with a variety of efforts led by the Centers for Medicare and Medicaid Services,¹⁵ as well as by large insurers, such as the Blue Cross Blue Shield of Massachusetts Alternative Quality Contract.¹⁶ With the exception of workplace wellness programs and reductions in prescription drug copayments, efforts to implement value-based health care within the employer sector have garnered less attention.^{17–19} Such an oversight is surprising given the significant role employers play in purchasing health care and providing health benefits to their employees. Private employers have a vested interest in maintaining a healthy and productive workforce. They also have a strong financial incentive to offer health benefits that are affordable to their employees and are sound investments in human capital from the employer's perspective. This review brings together the literature on health care costs and health care quality outcomes for employer-based health care spending.¹¹

The purpose of our research was to systematically review studies that evaluated the impact of employer-led efforts to improve

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Clinical significance: Our research concerns employer-led interventions to improve the provision of cost effective and quality health care for their employee populations, and assesses which interventions have shown the most promise for maintaining or improving health outcomes.

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the value of health spending, where employers have implemented changes to their health benefits in order to reduce costs while improving or maintaining quality for their employee populations. Insurers and providers are prominent drivers of health care benefit design, but employers, too, have a seat at the table; they decide what benefits and plan types are made available to the work force.²⁰ Other systematic reviews have investigated a particular type of benefit change; others have evaluated the cost or health outcomes associated with changes to benefits.^{21–24} This effort is unique in that it reviews the literature across all types of health benefit alterations and includes studies that evaluate both costs and health outcomes. The results are intended to offer employers, policy makers, and providers a clearer understanding of what evidence the scientific literature contains on employer-led health care efforts, and which avenues may be beneficial to their continued efforts to provide affordable high-quality health care coverage in the present and the future.

METHODS

Our systematic review was undertaken and reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines,²⁵ and the review's protocol was registered with international prospective register of systematic reviews, PROSPERO (registration number: CRD42020208648).²⁶

Study Inclusion Criteria

We included all US-based studies of employer-led health benefit strategies that reported outcomes for both employer health spending and employee health outcomes. Eligible employee health outcomes included process measures (eg, receipt of recommended care), measures related to adherence (eg, medication possession ratio), measures related to health outcomes and health status (eg, health risk group), and measures of patient experience and satisfaction. Because our interest was in health plan design, we excluded studies that were focused exclusively on wellness interventions, defined as those involving lifestyle management and disease management, screening to identify health risks, and health promotion activities.²⁷ We included prospective and retrospective studies that used designs aimed at minimizing selection bias by controlling for confounding variables, such as controlled before and after studies and randomized controlled trials.

Data Sources and Search

Searches were conducted in Ovid MEDLINE, Scopus, Business Source Premier (Ebsco), ABI Inform (Proquest), and Public Affairs Index Service (Proquest) from inception to August 2020, using search strategies that were collaboratively developed by all authors. The search employed medical subject headings (MeSH) and keywords for: (1) employer health plans (eg, self-insured, employer), (2) key benefit designs and changes (eg, value-based, consumer-directed health plan), and (3) costs (eg, cost, total claims). The search was initially conducted in MEDLINE, then translated for the other databases. No date or language limits were applied. Our detailed search strategy is available in the Supplemental Digital Content, <http://links.lww.com/JOM/B5>.

To ensure comprehensive coverage of the topic, we employed three additional search strategies. First, we solicited article recommendations from experts. Second, we conducted a supplemental search using terms for value-based designs and cost, eliminating the employer health plan limiter, similar to a strategy previously employed.²⁸ Third, the lead author hand-searched the bibliographies of relevant review articles for additional references. These additional strategies are also included in the Supplemental Digital Content, <http://links.lww.com/JOM/B5>.

An initial pilot screen of 100 randomly selected articles was performed to clarify inclusion and exclusion criteria. After the first pilot screen, a number of journals were selected for exclusion from

the broader search because they did not publish research studies. A list of these journals is provided in the supplementary materials, <http://links.lww.com/JOM/B5>. We also excluded anything with Anonymous as the author as these are rarely original research articles. Following the above exclusions, a second pilot screen was performed.

After the removal of duplicates and articles that met administrative exclusion criteria, the remaining articles were uploaded to the systematic review software Covidence (Melbourne, Australia). A team of four reviewers screened 6790 articles so that each article was reviewed by two independent screeners; conflicts were resolved by a third reviewer.

Of the 6790 items identified through our three-pronged search strategy, 158 full-text articles were assessed for eligibility by two independent screeners, with conflicts resolved through a discussion among the team of four reviewers. One hundred and fourteen articles were excluded during full-text review, leaving 44 articles for inclusion in the systematic review (see PRISMA flow diagram in the Supplemental Digital Content, <http://links.lww.com/JOM/B5>). Using the same method outlined above, we screened the bibliographies of these articles to identify potentially relevant articles not included in the original search results. No additional citations were added.

Data Extraction and Risk of Bias

We extracted relevant information on study design and analysis, population, sample size, details of the employer initiative, and cost and quality outcomes. The methodological rigor of the included studies was assessed using the modified Downs and Black checklist for randomized and non-randomized studies for health care.²⁹ This checklist has 27 items, with a total possible score of 28. Papers were rated excellent if they scored above 25, good if they scored between 20 and 25, fair if they scored between 15 and 19, and poor if they scored < 15.^{30,31} For both the data extraction and quality assessment, each study was reviewed by two independent investigators, and discrepancies resolved through consensus.

Limitations

It is possible that employers have implemented and evaluated actions to improve the value of health benefits, but their internal reports are not circulated in the public domain. Because of the variations in study designs and outcomes, we were unable to conduct a meta-analysis. Also, our choice for the Downs and Black was based on its rigor in assessing the quality of both RCTs and non-RCTs and its widespread use.^{31–34} Using a different tool may have produced different results related to study quality. Despite these limitations, to the best of our knowledge, this is the most comprehensive synthesis of health plan changes that have been instituted by employers to improve the value of health spending.

RESULTS

Among the 44 studies, 25 (57%) were published in 2011 or later, 21 (49%) included data from multiple employers, 22 (50%) included at least 25 months of follow up, and 14 (32%) were rated “good” in terms of study quality (see Table 1). The studies included three types of benefit changes: promoting access to high-value services (7 studies), redesigning payment models or health plans (10 studies), and restructuring drug benefits (27 studies). Overall, 25 studies (57%) reported improved value; 5 reported reduced employer health spending without compromising health outcomes; 10 reported improved health outcomes without raising costs for the employer, and 10 reported improvements across both outcomes. All of the studies were either quasi-experimental (eg, an employer modified a cost sharing arrangement, but employees were not randomized to intervention and control groups) or observational (eg, researchers analyzed claims data from different employers with varying cost sharing arrangements) in their design, and therefore, none examined causality.

TABLE 1. Selected Characteristics of the 44 Studies

Categories	Attributes	Number of Articles	Percent
Efforts to promote access to high-value services	Improved access to primary care	4	9
	Cost sharing for physical therapy or substance abuse treatment	2	5
	Cost sharing for low-value services	1	2
	Efforts to redesign payment models and health plans		
Efforts to redesign payment models and health plans	HDHP-SO	6	14
	Alternative payment model	3	7
	Expansion of health plan choice	1	2
Efforts to restructure drug benefits	Cost sharing for medications to manage chronic conditions	14	32
	Pharmacy benefit redesign (eg, formularies, tiering)	12	27
	Increased copayments for medications	1	2
	Date of publication		
Date of publication	2000 or earlier	4	9
	2001–2010	15	34
	2011–2020	25	57
Study setting	Single employer	23	52
	Multiple employers	21	49
Months of follow up	12 or less	5	11
	13–24 months	17	39
	25 or more months	22	50
Quality assessment	Poor	9	20
	Fair	21	48
	Good	14	32
Outcomes*	Beneficial in reducing employer health spending without compromising health outcomes	5	11
	Beneficial in Improving health outcomes without increasing employer spending	10	23
	Beneficial in lowering employer health spending and improving health outcomes	10	23

Source: Authors' analysis of studies. Notes: The categories of outcomes are mutually exclusive.

Promoting Access to High-Value Health Services

Four of the seven studies in this category were focused on efforts to improve access to primary care.^{35–38} Employers pursued opportunities to eliminate copayments for primary care services for employees, spouses, and dependents. Others reduced barriers to primary care by offering onsite health care services or supporting a health home model, whereby primary care physician practices engage with members in a coordinated manner to deliver high value care.³⁷ Although these studies demonstrated mixed success in reducing costs to employers, they were uniform in enhancing care quality: children were more likely to use preventive services, primary care visits increased for employees, and employee health biometric measures improved.^{35,37,38} All four studies found statistically significant improvements in health outcomes; three of these studies did not result in higher spending (see Table 2).^{35,36,38}

Other research focused on employer efforts to promote high-value services by either reducing cost-sharing arrangements for physical therapy³⁹ or substance use disorder treatment,⁴⁰ or by increasing cost-sharing for certain imaging services and surgical procedures (ie, low-value services).⁴¹ None of these efforts showed success in reducing employer health spending.^{39,41} The research was favorable in terms of measured employee health outcomes. Copayment levels had a significant effect on the reoccurrence of substance abuse treatment,⁴⁰ potentially because high copayments may suppresses a patient's willingness to seek and maintain a course of treatment; increased cost-sharing for low-value care led to a significant reduction in targeted services.⁴¹ Reduced copayments for physical therapy produced altered treatment patterns for back pain that were more consistent with the recommended guidelines.³⁹

Redesigning Payment Models and Health Plans

These studies consisted of actions to introduce high deductible health plans with a savings option (HDHP-SO)^{42–47} or alternative payment models,^{48–50} and one expanded health plan choice for employees.⁵¹ Among the six studies of HDHP-SOs, none showed beneficial results in terms of health outcomes. Results were more positive in terms of cost savings for the employer. Reductions in total health expenditures ranged from 3.8% to 17.4%.^{45,46} The one study that reported savings to the employer without harming health outcomes was a study of a transition from an HMO to a high-deductible health plan with deductible exemptions for routine preventive maternity services. Receipt of recommended maternity services was unchanged, though out-of-pocket costs for the insured increased.⁴⁴

Studies of alternative payment models featured implementation of a global budget, bundled payments for specified services at participating facilities, and reference pricing for colonoscopy. With the global payment model, plan enrollees in the Blue Cross Blue Shield of Massachusetts Alternative Quality Contract had lower spending growth and generally greater quality improvements after four years compared to similar control populations.⁴⁸ A bundled payment system—that included facility charges, physician fees, and all ancillary charges—presented unclear findings on costs when compared to non-bundled services.⁵⁰ Participants in the bundled payment group had fewer subsequent health claims than other health plan members for hospitalization (1.7% vs. 2.5%) and emergency department visits 30 days post-procedure (4.4% vs. 11.5%), yet, they faced significantly higher surgical complication (ie, reoperation) rates (11.8% vs. 7.7%).⁵⁰ The use of reference payments for

TABLE 2. Number of Studies Reporting Improved Value of Health Care Spending

Category	Number of Studies Showing Reduced Employer Spending Without Harming Health Outcomes	Number of Studies Showing Improved Health Outcomes Without Raising Employer Spending	Number of Studies Showing Reduced Employer Spending and Improved Health Outcomes
Efforts to promote access to high-value services			
Access to primary care (N = 4)	0	1	2
Cost sharing for physical therapy or substance abuse treatment (N = 2)	0	1	0
Cost sharing for low-value services (N = 1)	0	1	0
Efforts to redesign payment models and health plans			
HDHP-SO (N = 6)	1	0	0
Alternative payment model (N = 3)	1	0	1
Expansion of health plan choice (N = 1)	0	0	1
Efforts to restructure drug benefits			
Cost sharing for medications to manage chronic conditions (N = 14)	1	6	4
Pharmacy benefit redesign (eg, formularies, tiering) (N = 12)	1	1	2
Increased copayments for medications (N = 1)	1	0	0

Source: Authors' analysis of studies.

colonoscopies reduced prices for the procedure by 21% over 4 years, and was associated with a small statistically insignificant decline in procedural complications.⁴⁹

The final study in this category was an older study (1998) evaluating the effect of moving from an indemnity plan to offering employees a choice of coverage through an indemnity plan, HMO, or PPO, and introducing risk sharing between the employer (the US Department of Defense) and a third party (private medical care provider).⁵¹ Results were promising for both costs and quality, though they were not statistically significant.⁵¹

Restructuring Drug Benefits

Fourteen articles investigated medication cost-sharing for certain chronic health conditions,^{52–66} typically for diabetes, asthma, and hypertension. Ten studies reported improved health outcomes without compromising spending; five of those studies also produced cost savings (see Table 3). For example, Pesa et al showed that for every dollar of increased cost sharing paid by employees for antihypertensive medications, the proportion of days covered (PDC) by antihypertensive medications—a measure of adherence—decreased by 1.1 days. An increase in PDC was associated with a decrease in all-cause and hypertension-related inpatient, outpatient, and emergency room visits and medical, pharmacy, and total costs.⁵⁴

Twelve studies addressed the redesign of pharmacy benefits,^{67–77} most typically efforts to change the formulary or number of tiers, or move to a carve-out. Among the most notable of these studies was a recent (2020) evaluation of carve-in versus carve-out pharmacy benefits that reported that carve-in benefits produced a four percent savings in total costs and lower rates of hospitalization and ED visits for patients that had chronic illnesses.⁷⁸ This study was rated “good” in terms of study quality.

Finally, an older (1999) study that examined an increase in cost sharing for generic drugs reported cost savings for the employer and no effect on health outcomes.⁷⁹

DISCUSSION

The results of our review reveal many of the strategies that employers have undertaken over two decades to reduce health care costs while simultaneously maintaining or improving the health and wellbeing of their workforces. Our results suggest these efforts are likely worthwhile; more than half of the studies reported improved value of health spending. However, the evidence from our review also highlights a more complicated story, given that some studies

that examined similar strategies reported varying results. This variation in outcomes suggests that the benefit alteration itself is not the sole driving force of change. Employers, employees, and design details may all play an important part in the success or failure of any health benefits initiative, and future reviews must be attuned to these relative idiosyncrasies. Differences in the quality of studies also likely plays a role, speaking to the importance of applying a robust evaluation of employer-initiated actions.

The cost of prescription drugs has grown rapidly, and even higher than other health services in recent years,^{80,81} so the prevalence of drug benefit studies in our review is unsurprising. Fortunately, our results show that lowering cost sharing for medications for certain chronic illnesses show promise in improving the value of employer health spending. This is particularly notable as changing cost-sharing arrangements for medications is a comparatively simple alteration, and one that does not require a major restructuring of contracts with providers. Nevertheless, the existing literature has largely failed to capture a major issue on the minds of employers: cost controls for specialty drugs.^{82,83} Although specialty drugs are only used by two percent of the population, they accounted for approximately half of total drug spending in 2019.⁸⁴ The number of specialty drugs on the market and in development continues to grow rapidly, and the number of conditions they are designed to treat is expanding.⁸⁵ A 2011 survey by the Midwest Business Group on Health found that 25% of employers had little understanding of specialty drugs, and that 53% had a moderate understanding.⁸⁶ Thirty percent of employers had no knowledge of how much they spent on specialty drugs.⁸⁶ Given their clinical value and enormous financial investment, there appears to be a considerable need for research on how employers have adapted to the availability and expense of these new therapies. Some have predicted that employers will manage specialty drugs through mandatory specialty pharmacy utilization, intensive case management, patient incentives, or benefit design changes.⁸⁷ Evidence is needed to understand the broader impact of these efforts.

Our results on HDHP-SOs are concerning, given the prevalence of these plans. In 2020, 26% of employers offered HDHP-SOs to their respective employees, and 62% of covered workers were enrolled in HDHP-SOs.²⁰ Our findings align with a systematic review by Agarwal and colleagues that reported that HDHPs appeared to reduce health care costs by decreasing both appropriate and inappropriate care, and specifically, that these plans had an adverse effect on the use of preventive health care services.²⁴ Even HDHPs that offer reduced or no-cost preventive care may have a

TABLE 3. Studies of Cost Sharing for Medications to Manage Chronic Conditions

Author, Year	Chronic Illness(es) Targeted	Spending Outcomes	Health Outcomes	Quality Assessment
D'Souza et al, 2010 ⁶²	Asthma*	Participation in intervention decreased monthly medical costs by \$59. [†] Increase in adherence resulted in greater monthly pharmacy costs (\$57 [†]) but was offset by lower medical costs, leading to nonsignificant increase in monthly total health care costs.	Participation in intervention increased medication adherence by 10 percentage points. [†]	Good
Gibson et al, 2011 ⁵⁷	Asthma, hypertension, diabetes	The program was mostly cost-neutral to the employer and there was no aggregate change in spending.	Adherence to cardiovascular medications was 9.4% higher [†] ; there was no significant change in adherence for other groups.	Good
Pesa et al, 2012 ⁵⁴	Hypertension	An increase in adherence was associated with a decrease in both all-cause and hypertension-related utilization of inpatient, outpatient, and emergency room visits as well as medical, pharmacy, and total costs.	For every \$1.00 increase in patient cost sharing per fill (30 days), adherence to antihypertensive medication decreased by 1.10 days [†]	Good
Choudhry et al, 2012 ⁵⁸	Heart disease	Overall, combined health care spending for drugs and medical services was not significantly changed.	Reduced copays were associated with statistically significant reductions in rates of physician visits, hospitalizations, and emergency department admissions [†] ; rates of major coronary events or coronary revascularization procedures were not significantly changed.	Good
Thornton Sneider et al, 2016 ⁶⁴	Diabetes	Increased cost sharing was associated with higher total spending. [†]	A \$10 increase in out-of-pocket cost was associated with a 1.9% reduction in adherence. [†]	Good
Gibson et al, 2006 ⁵⁶	Coronary heart disease	For continuing users, there was a nonsignificant offset in medical spending associated with adherence, and the effect on total spending was not statistically significant. For new users, as adherence improved, prescription drug spending increased, medical spending decreased, and total expenditures was negative, although none of these relationships were statistically significant.	Lower statin copayments were associated with higher levels of statin adherence: when holding all other variables at their mean value, a \$10 increase in copay resulted in a 1.8 percentage point reduction in the probability of adherence for new users and a 3 percentage point reduction in the probability of adherence for continuing users. Continuing users adherent to statins had fewer negative events (emergency department visits, hospitalizations, and coronary heart disease–related hospitalizations). [†]	Fair
Philipson et al, 2010 ⁶⁵	Acute coronary syndrome	Higher cost sharing was associated with higher hospitalization costs (38% higher). [†]	Higher cost sharing was associated with lower use of antiplatelet therapy and higher likelihood of rehospitalization. [†]	Fair
Gibson et al, 2011 ⁵⁵	Diabetes*	Total medical spending was unchanged, and the net effect on medical plus drug spending was cost-neutral. For the first three years of the program combined, the employer received a diabetes-related return on investment of \$1.33 for every \$1.00 spent.	For patients in the value-based program who participated in disease management, adherence to recommended prescription oral and insulin use was higher than those without the value-based intervention. [†]	Fair
Barron et al, 2012 ⁵⁹	Diabetes*	Neither program showed significant reductions in total healthcare costs over 1 year.	In the first program, patients with waived copayments had significantly greater adherence with diabetes medications than controls, and they received better comprehensive diabetes care, including more A1C, cholesterol, and kidney function testing. In the second program, patients with reduced copays had a slightly higher proportion of adherent patients versus the group without copayment reduction. [†]	Fair

TABLE 3. (Continued)

Author, Year	Chronic Illness(es) Targeted	Spending Outcomes	Health Outcomes	Quality Assessment
Clark et al, 2014 ⁶³	Diabetes, high cholesterol*	There was an increase in mean per-beneficiary prescription cost for the payer after the implementation of the program for both participants and nonparticipants, although the increase was generally smaller for participants and statistically smaller among zero copay users of antihyperlipidemics compared with nonusers. [†]	Participants who received generics with no copay maintained adherence pre- and post-implementation while adherence in matched nonparticipants decreased. [†]	Fair
Reid et al, 2015 ⁶¹	Anxiety and depression*	There was a slight increase in pharmacy spending and the total healthcare spending for the health plan, but this was mitigated by a minor decrease in the medical spending.	The implementation of the value-based benefit design strategy was associated with a significant increase in average medication possession ratio, the initiation of new medications for anxiety or depression, and the filling of generic medications for anxiety or depression. [†]	Fair
Nair et al, 2009 ⁴³	Allergic rhinitis, arthritis, asthma, depression, diabetes, dyslipidemia, GERD, hypertension	Reductions in health care expenditures were not statistically different between the consumer-driven health plan and the PPO.	Those enrolled in a consumer-driven health plan were less likely to be adherent with their medications in the post period compared with the pre period, while those in a PPO comparison cohort had no change. [†]	Poor
Kelly et al, 2009 ⁶⁶	Asthma, diabetes, hypertension	The asthma cohort had a 40% increase in net payments over the study period, the hypertension cohort and hypertension-related net payments had a 9% increase, and total net payments in the diabetes cohort decreased by 13%.	In both the asthma and hypertension cohorts, the medication possession ratios increased by 9 percentage points, while the diabetes cohort increased by 4 percentage points.	Poor
Nair et al, 2009 ⁵³	Diabetes	Pharmacy expenditures increased by 47% and 53% and expenditures for diabetes services increased by 16% and 32% in years 1 and 2.	Diabetes prescription drug use increased by 9.5% in year 1 and by 5.5% in year 2, and mean adherence increased by 7% to 8% in year 1 and fell slightly in year 2 compared with the pre-period.	Poor

Source: Authors' analysis of studies. Notes: Results are reported for the longest follow-up period.

*Indicates the benefit change included disease management in addition to reduced cost sharing for medications.

†Statistically significant.

harmful impact on health outcomes because beneficiaries may be unaware of these cost-sharing exemptions.⁸⁸ HDHP-SOs may be tempting to employers, given the potential cost savings, and to employees who desire lower premiums and the tax benefits of a health savings account, but this strategy is among the least promising to promote value in health spending. Additional research is needed on how costs can be controlled while preventive care carveouts are promoted and the use of low-value services is dissuaded. Such a line of inquiry is especially critical amidst the current economic environment and increasing national concern around underinsurance and cost-exposure from medical debts.⁸⁹⁻⁹¹

This review also provides an opportunity to identify other approaches to designing health benefits that were not present in our results, but that are important for potential future research endeavors. For example, evidence on the impact of transparency initiatives and alternative payment models like reference pricing for medical procedures, which appears promising from our findings, was limited. In addition, only one article in our review analyzed the creation and implementation of an onsite medical office whereby employees and dependents could acquire preventive health care services with no copay.³⁶ The provision of onsite health care can be a tremendous investment for employers, but for employees and their families it

can serve as an efficient conduit to care by removing obstacles such as travel, waiting periods, and payment. A 2018 Mercer survey found that a third of large employers with 5000 or more employees had established worksite clinics—an increase from 25% in 2012—and saw this as a valuable venture to address basic and chronic health problems in their workforce and keep medical costs down.⁹² Although there is momentum in these types of employer-based clinics, it appears that, to date, little research has been conducted and published in the public domain.

Telemedicine has equally been a rapidly growing area of interest to employers, insurers, health care providers, and patients alike, yet our search retrieved no studies investigating the impact of providing telemedicine benefits. This area of research is sure to grow, however. The ongoing SARS-CoV-2 pandemic has dramatically changed the delivery of health care in the United States, and telemedicine has become an important tool for patients and providers.^{93,94} As in-person outpatient medical encounters have declined, telemedicine's dexterity has allowed basic health care interactions to transpire as social distancing recommendations have continued.⁹⁵ What remains to be seen is whether transition to online care will have a long-term impact on health care costs for employers and outcomes for employees.

CONCLUSION

Employer-sponsored health benefits will continue to be a significant source of health care coverage for the majority of non-elderly Americans. Amid a devastating pandemic, economic downturn, and political intransigence, employer-based health care coverage has served as a reliable vehicle for many and will be a focus of considerable policy discussion and innovation well into the future. Our review has presented the state of the research on the cost and quality outcomes of employer-led health initiatives. What we see is a diverse range of options available to employers, many of which have improved the value of health spending. In particular, employers should consider looking for opportunities to lower cost sharing for high value services, for example, primary care and medications for chronic illness. HDHP-SOs should be pursued with caution. Future evaluations of health benefit changes should consider the unique characteristics of the employer, the employee population, and the context in which the health policies are offered.

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