Stimulating the Emergence of a 60 Mile Per Gallon American Health Care System

Employers, Unions, Insurers, and Consumer Organizations Could Greatly Improve Health Insurance Affordability and Quality via Improved Physician Performance Transparency; Access to Beneficiary-Anonymized CMS Claims Data is Pivotal

Testimony of Arnold Milstein MD, MPH

House/Senate Joint Economic Committee

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I am Arnold Milstein, Chief Physician at Mercer Health & Benefits and the Medical Director of the Pacific Business Group on Health (PBGH), which serves 50 large and over 7,000 small California employers. My testimony incorporates my work with employer-funded health benefits plans operating in Nevada, Washington, Massachusetts, and California. It also reflects findings from a Robert Wood Johnson Foundation funded study of health care consumerism that I led in partnership with Professor Meredith Rosenthal at the Harvard School of Public Health. It does not represent the positions of these organizations. Findings from the Mercer/Harvard Study were published recently in *Health Affairs* (Attachment A).

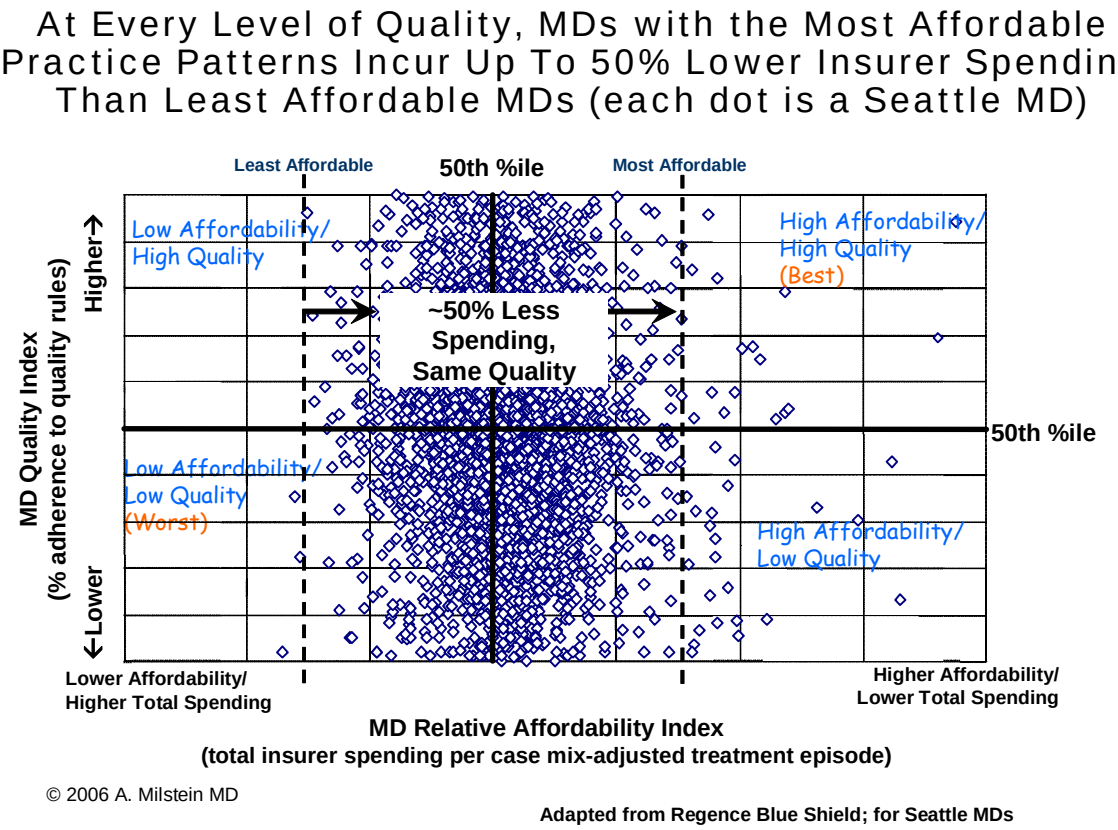
As American employers, unions, and taxpayers struggle to tame a long-standing 2.5 real percentage point gap between annual health care spending growth and GDP growth, one tool of great power remains mostly unused: the measurement of individual physicians' and physician groups' relative propensity to "consume" health insurance "fuel" when treating an episode of acute illness (such as a broken leg) or a year of chronic illness (such as advanced diabetes). The terms for this dimension of physician performance are "total cost of care," "all-in cost," "longitudinal cost-efficiency," or more simply "relative affordability."

An Opportunity to Reduce Spending Without Lowering Quality

After adjusting for differences in the mix and severity of illnesses that they treat, physicians in the same community and same medical specialty may vary from each other by as much as 2x in their relative affordability. Such wide variation in average total health insurance fuel consumption per episode of treatment is often not driven by differences in physician fees or in the volume of services provided directly by a physician. Rather, it is due to differences in the many factors that physicians influence through their uniquely powerful role in recommending drugs, imaging studies, lab tests, specialist consultations, hospitalizations, and healthy behaviors. The practice pattern of more affordable physicians consumes the equivalent of 30 miles per gallon of health insurance fuel; other physicians, often unknowingly and unintentionally,

function as the medical equivalent of large SUVs. These affordability differences do not correlate with quality of care. Exhibit 1 demonstrates in an illustrative community this wide difference in physician-associated health insurance fuel consumption. *The inter-physician spread in relative affordability persists at every level of measured quality of care.*

EXHIBIT 1



Most physicians are unaware of the relative affordability of their pattern of practice. When physicians' relative affordability is measured, payers can use the results in four ways to encourage physician improvement. Arranged roughly in order of their likely power to improve affordability, these uses are:

A.	FEEDBACK FOR MD USE IN PERFORMANCE IMPROVEMENT	Sharing affordability and quality measures with physicians and relying on their professionalism to improve the affordability and quality of their practice pattern, as was advocated for Medicare by MedPAC in 2005.
B.	PUBLIC TRANSPARENCY	Publicly releasing affordability measures, along with quality measures, so that consumers may select more affordable, high quality physicians.
C.	PAY-FOR-PERFORMANCE	Using affordability measures, along with quality measures, in physician pay-for-performance programs.
D.	PHYSICIAN NETWORK NARROWING OR TIERING	Using affordability measures to create insurance products that reward consumers with lower cost-sharing if they select more affordable, high quality physicians.

Proof of Concept

Critics of physician affordability measures reasonably question whether a physician's affordability score primarily reflects differences in (a) patients' severity of illness, health behaviors, or health care preferences; (b) the accuracy/completeness of claims data submitted by physicians; or (c) the impact of other providers. To answer this question, a number of employers, union-administered multi-employer benefits trusts and insurers have applied the ultimate test of the validity of such measures: they incentivized their enrollees to switch to quality-credentialed physicians who scored in the more affordable range (method D, above), and then measured whether per person health care spending growth slowed compared to other insurance plans in the same local area. In Exhibit 2, I have summarized their results: in brief, *all achieved substantial savings*, roughly in proportion to their degree of physician selectivity and salience to local physicians.

EXHIBIT 2

Proof of Concept by Pioneering Purchasers and Insurers
% Reduction in Per Capita Spending Compared to Similar Local Plans via Building MD Networks on Relative "All-in" Affordability, Rather Than on Lowest Fees; Quality of Care Measures Were Unchanged or Improved

Pitney Bowes, 1995 Connecticut [1]	**17%**
Culinary Union Trust, 2003 Nevada[2]	**7-8%**
PacifiCare, 2005 Multiple States[3]	**6%**
Aetna, 2006 Multiple States[4]	**2-3%**

[1] Appendix II in "Improving the Value of Health Benefit Plans Through Consumer-Driven Health Care," Mercer Human Resource Consulting, April 25, 2002
[2] Slide 2, Testimony of Peter V. Lee before the House Subcommittee on Health Promoting Quality and Efficiency of Care for Medicare Beneficiaries, March 15, 2005
[3] e-mail correspondence from Dr. Samuel Ho, PacifiCare, May 3, 2006
[4] e-mail correspondence from Dr. Donald Storey, Aetna, April 26, 2006

Barrier to Rapid Progress

Other private sector health benefit plan sponsors are beginning to follow these pioneers. For example, Wellpoint in California is offering a new PPO plan based on a network of more affordable, quality-credentialed physicians. Its premiums are on average 9% lower than for its less selective PPO plan. However, *very few private sector plans have enough claims experience to measure with confidence the affordability or quality for a majority of individual physicians in a community.* This leaves private sector health benefits plan sponsors with unattractive choices: (a) select physicians from among a minority of physicians with whom they do have enough claims experience; (b) select physicians based on marginal or outdated claims experience; or (c) merge claims data with other insurers. Most sponsors judge options (a) and (b) to be unworkable. Due to inter-payer differences in claims data bases and anti-trust concerns, option (c) is very difficult and slow. There are a few noteworthy exceptions. Under the leadership of the Massachusetts state employee benefits plan, "the GIC," six of Massachusetts's seven largest

insurers merged their claims data and measured individual physician affordability and quality statewide in consultation with the Massachusetts Medical Society. Health insurers began offering less costly new plans to GIC members last month, based on preferential use of more affordable physicians with favorable quality scores. In other states, over 50 large employers and 6 partnering multi-state insurers participate in "Care Focused Purchasing." CFP is pursuing a claims data merger that will enable similar solutions in multiple urban areas effective January 1, 2008. AHIP's "AQA" initiative intends to test the feasibility of merging of regional CMS and private sector claims data bases, in partnership with CMS, AHRQ and other organizations, including PBGH. However none of these pioneering efforts offer a near-term national private sector solution.

Facilitation Via a New Routine Use of CMS Claims Data

Private sector progress could be greatly accelerated if CMS routinely made available, in beneficiary-anonymized format, the full Medicare claims data base. Except for pediatric and maternity care, such availability would enable employment-based and individually based health benefits plans to lower premiums and raise quality of care by all four methods A-D outlined above. To further safeguard beneficiary privacy, such data base availability could be conditioned on HIPAA-compliant user agreements that limited the permitted use of the data to the generation of provider performance measures based on the aggregated claims of multiple beneficiaries. Such CMS claims data availability has been advocated by the Business Roundtable, by the *New York Times* editorial board, and in my prior testimony before this committee 2 years ago.

The full power of these measurement tools in America's battle to tame health insurance affordability and poor quality lies not in the one-time opportunity for pioneering employers, unions, or insurers to reduce spending 2-17% by incentivizing enrollees to link to more fuel-efficient, high quality physicians. *Rather, it lies in the motivational power of performance transparency in any industry, including the physician services industry, to propel continuous gains in affordability and quality, once consumers and/or prices begin to favor better, faster, leaner providers.*

To open this pathway to better, faster, and leaner "60 mile per gallon" American health care, CMS need not expend resources to provide requested data. Requestors of the data can pay CMS' incremental cost of fulfilling each data request. Moreover, CMS would reap substantial benefit, since resulting improvements in physician performance would also lift the financial sustainability and quality of care for Medicare, Medicaid, Tri-Care, and FEHBP beneficiaries.

Summary

Today's American health care market is only beginning to awaken to the error of primarily incentivizing low physician fees and high volumes of service, rather than physician excellence in quality and "all-in" affordability. Instead of endlessly passing the hot potato of health care spending growth back and forth between payers, consumers, and providers, let's unlock innovation in value breakthrough among American physicians. Through a combination of patient trust and laws, no one has more influence on clinical and financial outcomes than physicians do. If stimulated by a much more performance-sensitive environment that encourages all-in affordability and quality, American physicians can lead infinite innovation in better, faster, leaner care, and help stabilize or reduce health care spending as a percentage of our national income.

Attachment A

(See page 1599 for pivotal importance of access to Medicare claims data)

"Market Watch: A Report Card on the Freshman Class of Consumer-Directed Health Plans," M. Rosenthal, C. Hsuan, and A. Milstein, *Health Affairs*, Vol. 24; No. 6, November/December 2005.

MARKETWATCH

A Report Card On The Freshman Class Of Consumer-Directed Health Plans

Consumer-directed plans need major refinements if they are to substantially improve the affordability and quality of care.

by Meredith Rosenthal, Charleen Hsuan, and Arnold Milstein

ABSTRACT: We used a series of case studies of first-generation consumer-directed health plans to investigate their early experience and the suitability of their design for reducing the growth in health benefit spending and improving the value of that spending. We found three fundamental but correctible weaknesses: Most plans do not make available comparative measures of quality and longitudinal cost-efficiency in enough detail to help consumers discern higher-value health care options; financial incentives for consumers are weak and insensitive to differences in value among the selections that consumers make; and none of the plans made cost-sharing adjustments to preserve freedom of choice for low-income consumers.

IN THE WAKE OF the backlash against managed care, U.S. health benefit programs are undergoing a transformation.[1] The fulcrum for management of costs and quality has shifted from insurers and physicians toward consumers. Consumer-directed health plans, the result, vary in multiple dimensions but share (1) enhanced tools to support informed choice of providers and treatments; (2) expansion of programs to enable consumers to manage their health and health care; and (3) stronger financial incentives for consumers to control spending.[2]

Proponents of consumer-directed plans argue that they will catalyze health system reform by making enrollees better consumers of health care. They forecast that such plans will curb consumers' demand for low-value health services and stimulate their preference for more-affordable and higher-quality providers and treatments.[3] Skeptics suggest that the plans amount to Trojan horses carrying camouflaged reductions in risk protection and financial access to care.[4] They are concerned that consumer-directed plans offered alongside other plans will skim off the healthier members of the risk pool, resulting in a redistribution of resources from the sick to the healthy.[5]

In this paper we evaluate the early experience and design of fourteen first-generation consumer-directed health plans. We examine six design features that relevant health services research suggests will be required for such plans to reduce spending growth and increase value substantially. In addition, we reflect on early estimates of impact reported by the industry and independent researchers. We

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examined both spending-account and tiered consumer-directed plan models.

■ **Spending-account models.** Spending-account plans now come as health reimbursement accounts (HRAs) or health savings accounts (HSAs) and offer consumers a fund to spend on some or all categories of health care. Once the consumer has depleted the account, and for some expenses not eligible to be reimbursed out of the account, a high deductible must usually be met before preferred provider organization (PPO)–style coverage applies. HSAs, created by the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003, must be accompanied by a high-deductible health plan that conforms to Internal Revenue Service (IRS) guidelines and are portable for a person's lifetime. In HRAs, unspent balances are also carried forward by the beneficiary for future use but usually revert to the employer when the beneficiary changes employers.

■ **Tiered models.** Tiered models are more heterogeneous. They vary along several key dimensions: the scope and timing of consumer cost sharing. We label as "premium-tiered" those models that vary consumers' premium contributions based on annual selections, such as network size or health care delivery model. The most flexible forms of premium-tiered models are "customized-benefit-design" models that also allow consumers, at enrollment, to customize cost-sharing parameters such as size of deductible or coinsurance, as well as network scope and model. Another type of tiered model is "point-of-care." These models vary consumers' cost sharing for each provider contact at the point of service, based on the provider's quality, price, or cost-efficiency tier.

Study Methods

With an advisory team of five senior health services researchers, we identified fourteen consumer-directed health plans for study. We included the full range of new consumer-directed employee health benefit "solutions," except HSAs, which had newly entered the market. We prioritized plans with larger market share and those operating for at least a year, to allow sufficient operating experience. We included plans serving large employers (mostly self-insured) and small employers (mostly fully insured) because of likely differences in benefit design and implementation.

Among the fourteen plans were seven spending-account models, three premium-tiered models, one premium-tiered customized-benefit-design model, and three point-of-care tiered models. To obtain candid information from respondents, we agreed to not identify specific companies or products and to label them as Plans 1–14.[6] Because there are few insurers with large enrollments in spending-account models and point-of-care tiered networks, the seven spending-account models we studied accounted for nearly 85 percent of 2003 U.S. enrollment in such models, while the three point-of-care tiered models accounted for nearly 80 percent of 2003 U.S. enrollment in such models.

For each selected model, we focused on a specific employer's implementation of that model. In late 2003 and early 2004, we conducted a series of recorded telephone interviews with health plans' medical directors or marketing executives and the employer's human resource or health benefits director. We asked health plans questions in six categories: (1) targeted purchasers, including self- or fully insured; (2) benefit design; (3) consumer decision support and health/health care management; (4) quality of care/financial protections; (5) observed risk segmentation effects among enrollees; and (6) impact, if measured, on enrollees' satisfaction, re-enrollment rates, service use, plan-paid costs, out-of-pocket costs, and provider behavior. With health benefit purchasers, we explored instead integration of the consumer-directed plan with any other health plan options, including the employer's contributions toward plan premiums.

Effects Reported By The Plans

Rigorous analysis of the actual impact of consumer-directed plans is key to assessing the value of these new models. Because these plans are relatively new to the market, however, almost all of the evidence on savings

comes from the plans themselves or their consultants, and thus it should be regarded as preliminary until independently confirmed. The impact of favorable selection among enrollees, empirically demonstrated in some studies, remains the largest unknown.[7] Also, findings relate to specific populations and plan designs and might not be generalizable.

■ **Service use and spending.** Most of the spending-account plans reported internal estimates of reduced service use and total spending because of the introduction of the new models. One premium-tiered plan also reported that its introduction caused enrollees to buy less generous plan designs and to reduce use compared with the previous year.

Reported savings are difficult to generalize because they are relative to a variety of comparison plans, and, in many cases, it is unclear how much were attributable to coverage reductions rather than behavioral change. The largest savings estimate suggested an 11 percent absolute reduction in total spending in the first year, while other plans in the market were growing at double-digit rates. Most plans reported a reduced rate of positive spending growth, and some had no data. Several plans reported that consumers' out-of-pocket spending grew more slowly than comparison plans, as well. Plans attributed most savings to service substitutions by consumers rather than reductions in overall rates of service use. Substitutions included generic for brand-name drugs and office visits for emergency room visits. One spending account and one premium-tiered plan (Plans 2 and 9) found that use of preventive care increased relative to comparison groups. Some point-of-care tiered plans observed slight behavioral modification among enrollees. Plan 13 reported "modest but measurable" switching among enrollees to providers in the preferred tier, while Plan 14 will increase the out-of-pocket cost differentials and add a fourth tier because of negligible switching among enrollees.

Independent evaluations of consumer-directed plans are now under way. The largest evaluation, and the only one to report savings, assesses spending accounts offered by Definity in comparison to health maintenance organization (HMO) and PPO plans offered to the same risk pools.[8] In this setting, drug spending greatly decreased for spending-account enrollees and remained below that of other plans throughout the study. Hospital admission rates were also initially lower but then surpassed those of the comparison plans. These findings might be explained by the fact that in later years, many enrollees had accrued enough in their accounts to offset all or most of the deductible.

■ **Consumer satisfaction.** Finally, several spending-account plans reported annual renewal frequency above 90 percent for both employers and employees with a choice of plans. This, and survey results cited by the same plans, suggests that satisfaction with the spending-account models is relatively high. Published survey data provide a somewhat different insight. In one employer setting, consumers who chose a consumer-directed plan offered alongside HMO and PPO options were somewhat less satisfied with their plan than other employees and were more likely to have switched plans at the end of the year.[9] Recall, however, that these findings relate to a single plan and might not be generalizable.

The Grading System For Judging Consumer-Directed Plan Designs

We used principles derived from relevant health services research to score the plans on the following six design features likely to be pivotal to a plan's ability to greatly curb per capita spending and ameliorate quality failure.

■ **Low-spender incentives.** Because tiered plans are primarily attempting to influence choice of providers, to test the adequacy of their low-spender incentives, we sought evidence on the amount of incremental cost sharing required to encourage enrollees to select a provider other than their natural choice. Survey research by David Meltzer and colleagues on consumers' acceptance of inpatient care by hospitalists rather than by their personal physicians showed that $200 will cause 85 percent of U.S. patients to select a hospitalist.[10] Only half of the premium-tiered models re-

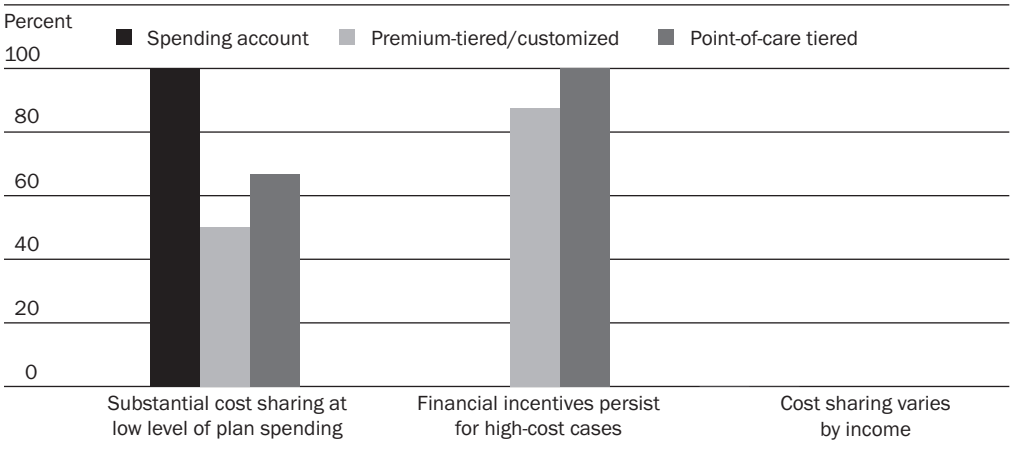
quired consumers to pay at least $200 more per year for selecting a lower provider tier. Two-thirds of the point-of-care tiered models required copayment differences of at least $200 if they received the modal annual amount of care from lower-tier physicians or hospitals.

Spending-account plans require consumers to pay dollar for dollar out of their accounts or out of pocket up to $1,000–$1,750 for single coverage. Because all of the accounts we examined had rollover provisions, we assume that enrollees typically treat account dollars as having high opportunity costs and will therefore try to conserve them for uses perceived as being of higher value.[11] Thus, all of the spending-account models passed our test of adequacy of low-spender incentives (Exhibit 1).

■ **High-spender incentives.** The principal factor driving growth in health spending is the use of high-cost technologies.[12] If consumer financial incentives rather than managed care preauthorization controls are to be relied upon for cost control, they must influence consumers with high levels of spending. To test for this, we examined whether consumer-directed plans use financial incentives to influence consumers' selections after combined spending exceeds $5,000.[13] For premium-tiered and point-of-care tiered models, we again looked for expected annual out-of-pocket payment differences of at least $200 between the most and least preferred hospitals and physicians, but at higher levels of plan spending. For spending accounts, we looked at the coinsurance rate to determine the consumer's share of spending after $5,000 and compared this to 20 percent, the modal coinsurance rate faced by current PPO or point-of-service (POS) enrollees for physician services.

We judged that all four premium-tiered plans offered sizable high-spender incentives based on the following logic: If a high-spending consumer responded to the premium differences among plan options by selecting a narrower network or higher cost sharing (or both), then the marginal incentives intrinsic to that selection would persist for the entire year, until the consumer exceeded the out-of-pocket maximum. The three point-of-care tiered plans also influence consumers' selections at relatively high levels of spending because each time a person visits a nonpreferred physician or hospital, an additional copayment is required. For most patients at $5,000 of combined plan spending, the out-of-pocket limit will not have been reached. The spending-account models required coinsurance of 10 percent or less once the deductible had been met. Thus, incentives to reduce spending were weak or absent once a person reached $1,500–

EXHIBIT 1
Structure Of Consumer Cost Sharing In Consumer-Directed Health Plans



SOURCE: Authors' analysis of information collected by telephone interview with case-study participants.

$2,500 in cumulative plan spending.

We note, however, that cost sharing is inherently a limited mechanism for influencing high spenders because out-of-pocket maximums, which are needed to protect against catastrophic financial risk, ultimately desensitize enrollees to the cost-efficiency of their selections, unless positive incentives are used.

■ **Low-income incentive adjustments.** Although cost sharing needs to be adequate to encourage higher-value selections, it is counterproductive if it discourages use of valuable services by lower-income enrollees or offers choice in theory only.[14] POS cost sharing, coverage bonuses, out-of-pocket limits, or premium contributions that are sensitive to enrollees' income all might protect lower-income people. Among all types of consumer-directed plans we examined, none of the employers or plans used these forms of income-sensitivity.

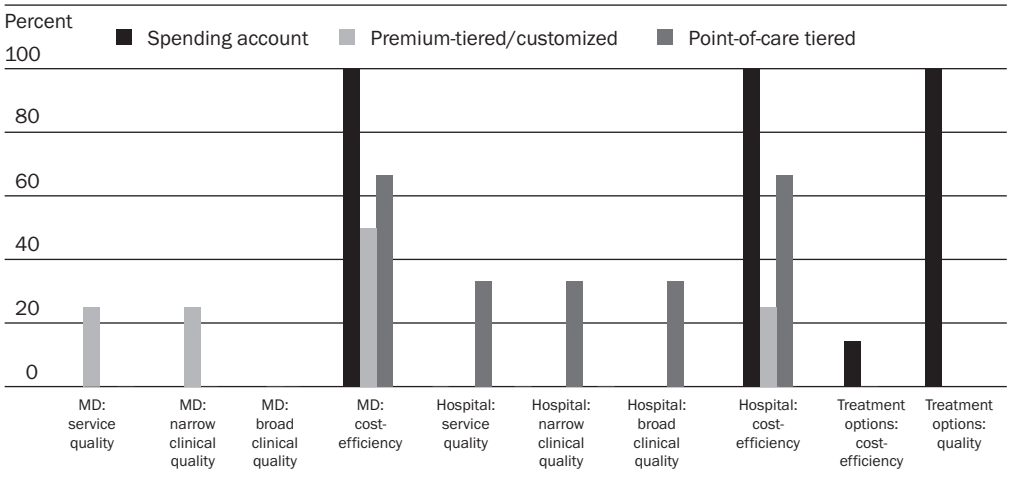
■ **Value-tailored incentives.** We looked separately at whether cost sharing favors higher-quality and more cost-efficient plan selections (rather than just those with lower unit prices) of physicians, hospitals, and major treatment options. For quality, we further differentiated between measures used that represent only service quality; narrowly defined clinical quality; or multidimensional, broadly defined quality. For treatment options, we examined whether cost sharing varies based on cost-efficiency and any measure of quality.

Because most spending accounts rely on deductibles and traditional coinsurance, cost sharing is not sensitive to the quality of provider selections (Exhibit 2). However, three of the seven spending accounts made some concession to quality by providing first-dollar coverage or subsidies for preventive services, and one plan offered a reward program to encourage healthy behavior, including appropriate primary prevention. One spending-account model also favored high-value care by providing more generous coverage for maintenance drugs for chronic conditions.

We also deemed spending accounts to offer enrollees incentives to select more cost-efficient physicians and treatments, because the individual bears the full cost of provider and treatment selections (up to the deductible). However, because nearly any hospital admission entails spending beyond the deductible, spending accounts do not encourage selection of more cost-efficient hospitals (they only discourage admissions).

To test point-of-care tiered and premium-tiered plans, we examined the measures they used to rate providers for the purposes of tier-

EXHIBIT 2
Value-Tailored Incentives In Consumer-Directed Health Plans



SOURCE: Authors' analysis of information collected by telephone interview with case-study participants.

ing. All used risk-adjusted information on cost-efficiency for this purpose, but only two used quality measures.[15]

■ **Decision support.** If consumers lack access to information about the costs and quality of provider and treatment options, the notion of a discriminating health care consumer is meaningless. Ideally, this information would include comprehensive cost-efficiency and broad quality measures and would be actively presented to consumers in particular health states. At a minimum, we looked for information on unit prices (for cost) and selected quality domains, available online, in print, or by telephone.

Only two spending-account plans provided any provider-specific cost information, and this was limited to unit price—a highly imprecise proxy measure of cost-efficiency (Exhibit 3). Three premium-tiered and two point-of-care tiered plans made available qualitative ratings of physician or medical group costs (for example, an indication of being above or below a threshold using stars, arrows, or dollar signs). To rate cost performance, these five plans used a measure of cost-efficiency—total cost per episode—rather than unit price.

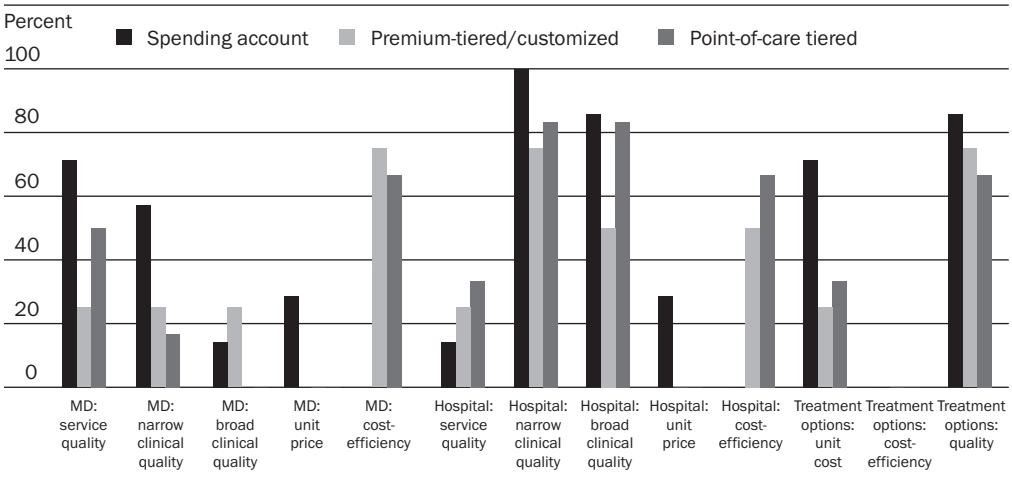
■ **Health management support.** We looked for four sentinel support mechanisms that provide direct, professionally staffed support to consumers (rather than providers) to manage health and health care: nurse-staffed telephone help lines; health risk assessment linked to staffed risk-reduction programs, shared decision support/health coaching, and case management.[16] Most of the plans undertook to engage consumers in managing their own health through these four mechanisms (Exhibit 4), although some differences among plan types emerged.

Final Grades

To summarize the strengths and weaknesses of each type of consumer-directed plan model across the fourteen cases, we assigned final letter grades to the plan models based on the percentage that fulfilled each of our six evaluation criteria (Exhibit 5).

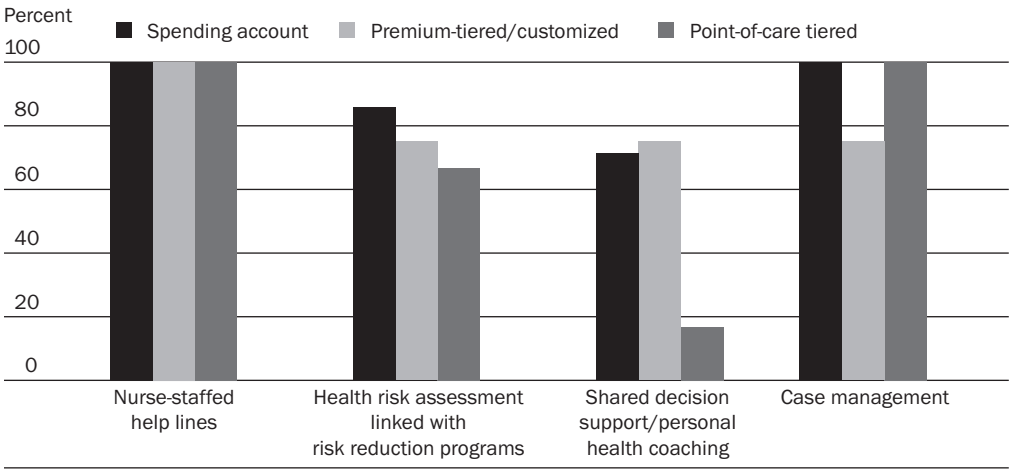
For value-sensitivity of cost sharing, we awarded one point each for physician or hospital cost-efficiency and for treatment option cost-efficiency. Similarly, we awarded one point each for sensitivity of cost sharing to the quality of physician or hospital services and both narrowly defined and broadly defined

EXHIBIT 3
Information To Guide Consumers' Selections Of Provider And Treatment Options In Consumer-Directed Health Plans



SOURCE: Authors' analysis of information collected by telephone interview with case-study participants.

EXHIBIT 4
Provision Of Health Management Support In Consumer-Directed Health Plans



SOURCE: Authors' analysis of information collected by telephone interview with case-study participants.

clinical quality. We also allocated one point for cost sharing that reflected treatment quality (we gave a half credit on this measure for subsidizing preventive care or maintenance drugs). The overall grade was then determined by the sum of points awarded over the maximum possible.

For decision support, we similarly aggregated binary scores for the availability of comparative cost information for physicians, hospitals, and treatment options (half credit for unit cost; full credit for cost efficiency) to yield an overall total. For quality information, we awarded one point each for reporting service quality measures, narrowly defined clinical quality measures, and broad quality measures for providers. Finally, we awarded each case a grade commensurate with the total number of staffed health management supports offered to enrollees, divided by four.

In the overall scoring, no plan model ranked better than another across all criteria (Exhibit 5). The category in which grades were favorable overall was health management. Few

EXHIBIT 5
Report Card On The Freshman Class Of Consumer-Directed Health Plans

Model type	Spending account	Premium-tiered/ flexible benefit	Point-of-care tiered
Substantial cost sharing at low level of plan spending	A	F	D
Persistence of cost sharing for high-cost cases	F	B+	A
Cost sharing varies by income	F	F	F
Value-tailored incentives			
Cost	A	C	C
Quality	F	F	F
Information for selecting provider and treatment options			
Cost	F	F	D
Quality	C	F	D
Health management support	A–	B–	C+

SOURCE: Authors' analysis of information collected by telephone interviews with case-study participants.

plans provided consumers with incentives to select higher-quality care. With respect to incentives to economize, most plans require that consumers pay more for higher-cost (less cost-efficient) options. Few plans, however, provide cost information that would enable consumers to compare various options, other than the option to avoid the health care system altogether.

Discussion

We studied the design and implementation of fourteen consumer-directed health plans to assess whether they were likely to reduce health care spending and improve the value of spending for health benefits. A natural limitation of the case-study approach is that the selected cases might not generalize to the universe of consumer-directed plans. In particular, we selected health plan models based in part on the length of time they had been in the market. This criterion favors the best plans (survivorship bias) but also might miss later design innovations. This market is rapidly evolving, particularly with the diffusion of HSAs, and is likely improving upon the first-generation plan models we examined.

■ **Three critical weaknesses in plans.** Efforts to refine consumer-directed plans should focus on rectifying three critical weaknesses in the freshman class.

First, if these plans are to succeed in promoting informed consumer choice, much more detailed information on cost efficiency and quality needs to be made available to enrollees. To be fair, this lack of transparency is market-wide. Other benefit models, however, do not claim to promote consumerism or to leverage consumer choice for value improvement. Off-the-shelf software that uses administrative data to compute risk-adjusted longitudinal cost-efficiency measures for episodes of care is widely available.[17] These measures, which reflect a combination of unit prices and utilization patterns over an episode of acute illness or year of chronic illness, relieve plans' concerns about revealing negotiated unit prices. More importantly, they can protect consumers from the false economy of judging a provider's or treatment's cost-efficiency based on price, rather than on the likely impact on total spending.

The problem of inadequate denominator sizes to measure cost-efficiency and quality performance for individual physicians or hospital service lines could be partially addressed by giving health plans real-time access to the full Medicare claims database from the Centers for Medicare and Medicaid Services (CMS), holding back data only to the extent necessary to protect the privacy of individual beneficiaries. Although there are obstacles—primarily political—to such a proposal, they are not insurmountable. Indeed, the Business Roundtable and a separate group of more than thirty large employers are actively supporting its inclusion in proposed legislation making its way through Congress.[18] Moreover, in light of the CMS's own efforts to assess and reward physician quality and resource use, substantial direct gains would accrue to the CMS by enabling the private sector to do the same via a common database. Meanwhile, the denominator can be enlarged via unit-price, neutralized, multiplan pooling of claims data, which has already been achieved by six large Massachusetts health plans under the leadership of the state's Group Insurance Commission.[19]

Second, it is difficult to rationalize the spread of spending-account models unless they incorporate easily understood cost-efficiency comparisons into the benefit design. For example, one plan we interviewed was developing for its spending-account model a drug benefit that put drugs in tiers by cost-effectiveness within a therapeutic class. In addition to applying it to physician and hospital selections, this concept could be refined to encompass cost-utility ratings defined collectively by insurance pool members rather than by the insurer and extended to other medical and surgical treatment choices for which sufficient outcome data exist.

Third, to be effective in controlling overall spending, consumer-directed plans will probably need stronger, more salient incentives that engage all enrollees, particularly those with high expected spending. Income-sensitive cost sharing or income-based contribu-

tions to spending accounts will be necessary to protect low-income consumers in these more high-powered benefit designs. Positive incentives (payments to lower-income enrollees) might be best suited to induce participation in health management programs and selection of the most cost-efficient and high-quality provider and treatment options at high levels of spending.

CAPTURING THE potential of consumer-directed plans to improve the affordability and quality of U.S. health care will require major refinements of the freshman class. Given the continued development of increasingly complex and valuable biomedical innovations, the future viability of employer health insurance pools requires equally sophisticated benefit models in synergy with efforts to enable and motivate provider reengineering of clinical processes.

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NOTES

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