Value Based Insurance Design: Restoring Health To The Health Care Cost Debate

by Michael E. Chernew and A. Mark Fendrick

As health care premiums escalate, both private and public purchasers are forced to decide how to best address this unsustainable economic burden. Unfortunately, value—the clinical benefit achieved for the money spent—is frequently excluded from the dialogue on how to manage health care spending growth.

If the desirable clinical effects of health insurance are ignored, constraining health care cost growth can be simply achieved by providing less generous coverage or no coverage at all. In fact, the numbers of Americans who are uninsured or underinsured is at an all time high, reflecting the trade off between the high cost of health benefits and remaining viable in today's economy.[1] Although rising health care costs are the main impetus behind health benefit redesign, concerns regarding the quality of care share the limelight. This unresolved tension between cost containment and suboptimal quality has led to two prevailing trends in benefit design.

1. Cost containment strategies that use financial incentives to alter patient and provider behavior. This approach includes increases in cost sharing in existing plan designs, and the introduction of high deductible health plans (HDHP) that allow employees to set aside tax-free money for health expenses.

2. The second focuses on improving the quality of care and keeping individuals healthier longer. Employers and insurers are implementing wellness and disease management (DM) initiatives to help individuals manage their health in an effort to avoid more costly care. Pay-for-performance (P4P) programs, which pay providers more for adhering to evidence-based clinical practices are disseminating widely.

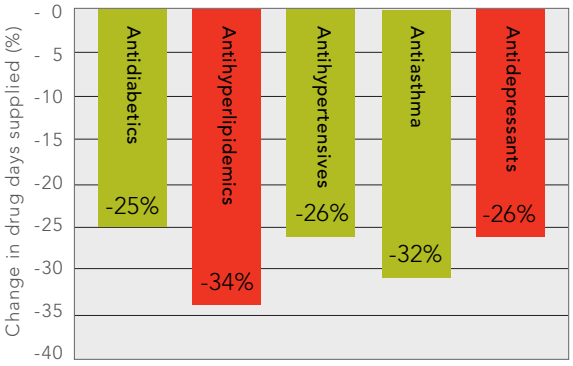
Since higher patient cost sharing discourages use of high-value medical services, these two trends inherently conflict. The main challenge is to devise benefit packages that openly address the problem of spending growth, yet explicitly aim to optimize the health of the beneficiaries through the incorporation of features which complement each other in the effective and efficient delivery of care.

Role Of Cost Sharing

From the patient perspective, increased cost sharing is the principle instrument of change. There is little debate over the economic theory that an increase in out-of-pocket expenses will lead to less consumption of health care services. Many studies demonstrate that when confronted with higher costs, individuals will purchase less care.[2] Ideally, higher patient copayments would discourage only the utilization of low-value care. For this important assumption to be achieved, patients must be able to distinguish between high-value and low-value interventions. However, when this ability to differentiate among services does not occur, increased cost sharing has the potential to cause negative clinical outcomes. A large and growing body of evidence demonstrates that, in response to increased cost sharing, patients decrease use of both high-value and low-value services, and may worsen health outcomes as a result.

INCREASED OUT-OF-POCKET COSTS REDUCE MEDICATION ADHERENCE

Percent change in days of medication supplied when co-pays were doubled.



Analysis of pharmacy claims data from 30 employers and 52 health plans. Adapted from Goldman DP et al. JAMA. 2004;291:2344-2350

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Value-Based Insurance Design

In response to the adverse clinical effects of "one size fits all" cost shifting, we propose "value-based insurance design" (VBID), a system that bases patients' copayments on the relative value—not the cost—of the clinical intervention.[3,4] In this setting, cost sharing is still utilized, but a clinically sensitive approach is explicitly employed to mitigate the adverse health consequences of high out-of-pocket expenditures. The principle tenets of a VBID program are: 1) medical services differ in the clinical benefit achieved; and, 2) the value of a specific intervention likely varies across patient groups. We believe that more efficient resource allocation can be achieved when the amount of patient cost sharing is a function of the value of the specific health care service to a targeted patient group.

While cost sharing may be ill-advised in certain clinical circumstances, it would be absurd to completely ignore the need for interventions to reign in spending. Increased cost sharing seems inevitable given the lack of demonstrated savings from, or unwillingness to adopt, other approaches. In the VBID paradigm, patients' out-of-pocket costs are determined by the costs and benefit of care; no or low copayment for interventions of highest value (e.g., mammogram for women with a first degree relative with breast cancer) and higher cost sharing for interventions with little or no proven health care benefit (e.g., total body computer tomographic scanning). This more sophisticated benefit design is made possible by advances in health information technology and comparative effectiveness research. While some believe that such benefit packages are too complex for consumers or difficult to create in certain clinical conditions, the inability to construct the perfect program should not lead to abandonment of key VBID principles. The cost of maintaining the status quo, in terms of higher spending and worse health outcomes, is staggering.

Barriers to VBID implementation exist and create challenges.[4] From experience in the field, VBID programs are feasible, acceptable by all vested stakeholders, and have been well received by beneficiaries. Multiple private and public sector employers, health plans and pharmacy benefit managers have implemented VBID programs encouraging the use of high quality services. Pitney Bowes, The City of Asheville, North Carolina, Marriott Corporation, Mohawk Carpets, Wal-Mart, CIGNA, the State of Maine and the University of Michigan are among those who have implemented VBID. Leading health plans and health benefit consultants are working to make these packages accessible nationwide.

VBID can address several important inconsistencies in the current system and work synergistically with other initiatives such as HDHP, DM, patient centered medical home and P4P programs. By allowing different cost sharing provisions for different services, value can be enhanced without removing the role of cost sharing in the system overall.

Types Of VBID Programs

In practice, there are two general approaches to VBID programs. The first simply targets services known to be of high value (e.g., ACE inhibitors). While some users of the services have the target high-value condition(s) (e.g., congestive heart failure, myocardial infarction), others do not (e.g., essential hypertension), and the system does not attempt to differentiate between these patient groups.

The second approach targets patients with select clinical diagnoses (e.g., coronary artery disease) and lowers copays for specific high-value services (e.g., statins, beta-blockers) only for those patient groups. This diagnosis driven strategy—which requires more sophisticated data systems to implement—creates a differential copay based upon patients' health conditions.

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A controlled evaluation of a VBID program that lowered copayments for all users of five high-value pharmaceutical classes, demonstrated significant increases in patient compliance.[5]

COPAY REDUCTIONS INCREASE ADHERENCE OF HIGH-VALUE DRUG CLASSES

When a large services industry emplyer reduces copays for certain classes of crugs, nonadherence rates fell by 7-14%.

	MPR Increase	Baseline MPR	%MPR increase	% reduction in non-adherence
ACE/ARB	2.59 (p<.001)	68.4	3.8%	8.2%
B-blocker	3.02 (p<.001)	68.3	4.4%	9.5%
Diabetes	4.02 (p<.001)	69.5	5.8%	13.2%
Statins	3.39 (p<.001)	53.0	6.3%	7.1%
Steroids	1.86 (p<.134)	31.6	5.9%	2.7%

Copayment rates for generic medications were reduced from $5 to $0; copayments for branded drugs were cut in half for 5 classes of drugs. A similar employer with identical disease management offerings and similar but stable copayments serves as a control group.

MPR = Medication Possession Ratio

Source: Chernew; M. et al. Impact of prescription copayments on medication adherence in the context of a disease management program. Health Affairs. *2009 Ref [5].*

The financial impact of VBID programs on health care spending is under investigation. Economic effects depend on the level and precision of targeting and the extent/direction of the changes in copayments. Since many clinical services provide higher value for a select subset of patients, the better the system is at identifying those patients, the higher likelihood of achieving a high financial return. Employers with more targeted programs incur lower treatment costs, because fewer individuals are eligible for copay reductions and the targeted patients who receive copay relief are most likely to benefit from increased utilization.

Offsetting these direct costs of copay reduction are the savings incurred by reductions in future services avoided due to better clinical outcomes. For example, savings due to fewer emergency room visits for acute asthma exacerbations would offset the direct costs of lower copays for asthma controller medications, at least partially. The net financial benefit improves if the underlying risk of an adverse outcome is high, if the cost of that adverse outcome is high, if consumers are responsive to lower copays, and if the service is effective at preventing the adverse outcome. Additional return on investment accrues if the nonmedical benefits of improved health (e.g., reduced disability and absenteeism, enhanced productivity) are included.

The following financial scenarios are likely to occur, depending on the goals of the VBID program and willingness to raise copayments on low-value services:

1. Targeted copay reductions only. Result: higher value for each market-basket of services due to incentives to use services that produce high levels of health benefit. Uncertain effect on total health care cost trend.
2. Targeted copay reductions, global or targeted copay increases to offset short-term costs of increased utilization of targeted services (actuarial equivalence). Result: higher value for each market-basket of services due to incentives to use services that produce high levels of health benefit. Equal or lower costs, depending on extent savings due to offsets from improved health and lower utilization of low-value services due to higher copays.

Controlling Costs

Efforts to control costs should not produce reductions in quality of care. Payers desiring to optimize health gains per dollar spent should avoid "across the board" cost sharing, and instead implement a value-based design that removes barriers/provides incentives to encourage desired behaviors for patients and providers. Targeted efforts to reduce utilization of low-value services are more likely to contain cost growth while maintaining quality of care. That said, the alignment

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of financial incentives—for patients and providers—would encourage the use of high-value care, while discouraging the use of low-value or unproven services, and ultimately produce more health at any level of health care expenditure.

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