

ALTARUM INSTITUTE
ISSUE BRIEF
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Value-Based Insurance Design: What Do We Know About What Works?

How can value-based insurance design approaches improve quality and control costs for employers and consumers? What are the strategies for doing so?

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Value-based insurance design (VBID), also known as value-based benefit design, seeks to increase the value of health care through incentives to use services more wisely. One value-based design reduces or eliminates cost sharing for services that show strong evidence of clinical benefit. Another design increases cost sharing for services that do not show evidence of clinical benefit.¹

Altarum Institute researchers conducted in-depth environmental scans and reviews of the literature on research and practices throughout the United States to provide guidance for purchasers, payers, and other stakeholders as they consider value-based insurance design. Altarum found six areas of value-based insurance design are considered when purchasing health care services: targeted incentives, targeted health promotion and disease management, targeted copayments, non-targeted incentives, preferred provider and supplier, and model programs and hybrid applications.

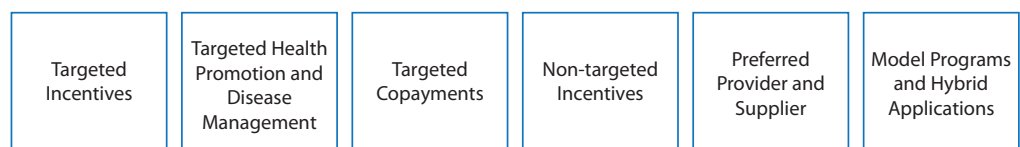


Value-Based Insurance Design: What about Return on Investment?

Value-based insurance and benefit designs are intended to increase the likelihood that patients will comply with recommended treatment plans and engage in healthy behaviors. In turn, healthier people typically will have lower health care costs. Patients with specific chronic conditions who maintain treatment regimens also have lower overall health care costs.² Value-based benefit designs may also increase costs of care in pursuit of quality enhancements. Employers are cautioned not to adopt value-based benefits as a cost-saving strategy, but rather to increase value for the health care dollar.³

Return on investment (ROI) can be determined by assessing both direct and indirect costs. According to the National Business Coalition on Health, "ROI is determined by assessing costs to the purchaser of (a) reduced co-pays or other financial incentives, and (b) any increased utilization that results from the incentives. It then compares these costs to reductions in medical care costs that may occur as a result of increased treatment adherence."⁴ The time frame for demonstrating ROI is important to purchasers, as results may occur over time—within or beyond an enrollee's engagement with the employer. Evidence, however, of ROI associated with different benefit designs is limited because impact differs according to conditions and contexts.

Value-Based Insurance Design Strategies



What We Know About What Works

Value-based insurance design is accomplished, advanced, or supported by the approaches discussed below in terms of what we know about what works. These approaches can be used alone or complemented by other approaches.

VBID Approach	Summary
<p><i>Targeted incentives</i> are directed to specific enrollees based on their diagnosis; e.g., targeting initiatives for anti-hypertensive medications to limit copayments to members with known hypertension or targeting participation in disease management or health promotion programs to members with known conditions or risk factors.</p>	<p>Programs that target participation often involve multiple interventions to address or prevent one or more specific conditions. Additionally, financial and other incentives may be offered for participation, or achieving specific outcomes; e.g., improved treatment adherence, management of chronic conditions, or behavior changes. It is important to coordinate across programs and vendors to track participation and intervention impacts. Often, it is difficult to assess the relative impact of specific interventions and incentives—especially when multiple approaches are used. Many hybrid, mixed models have been implemented, including diverse components, with varying degrees of impact.</p>
<p><i>Targeted copayments</i> (for visits, medication, etc.) may reduce or eliminate copayments that can serve as barriers to employee utilization of appropriate care for specific conditions. This approach typically targets high-cost chronic conditions, such as diabetes or hypertension, where appropriate treatment and management have been established. This approach intends to remove financial barriers to medications and services with the expectation of raising compliance and avoiding more costly services, such as hospitalization.</p>	<p>The financial impact depends on the level and precision of clinical targeting and the extent of changes in copayments. Interventions that are carefully targeted are most likely to reduce program costs.⁵</p>
<p><i>Targeted health promotion and disease management</i> include a broad range of programs and interventions, from smoking cessation and wellness programs to evidence-based management of chronic conditions such as diabetes and asthma. These interventions seek to encourage participation of high-risk employees in health promotion and disease management programs to reduce health care costs and increase workforce productivity.</p>	<p>Careful selection of programs and targeting of individuals is key to achieving savings and clinical success. Health promotion and disease prevention programs do not necessarily reduce the costs of care—in some cases, they may increase overall costs to the employer. A recent review reports that cost offsets do occur, especially among those with chronic diseases. Studies have also shown that decreases in prescription drug spending resulting from patient copayments can lead to increases in utilization of other services; e.g., hospital, ER visits. Offsets tend to be higher in targeted populations with chronic diagnoses.⁶ Several sources identify the need for sophisticated data systems to identify high-value services, specific patients using them, and compliance.</p>

Non-targeted incentives include designs available to all enrollees regardless of diagnosis. This approach is available to all employees and members regardless of health or risk status. Non-targeted incentives do not require as sophisticated data systems and analytics as targeted programs (above), but purchasers and employers should be careful in selecting specific interventions, given the potential cost implications.

Preferred provider and supplier approaches encourage or limit benefit choices to lower cost, high-quality providers. This approach provides direct incentives for employees to select providers based on quality and cost effectiveness. Preferred provider/supplier approaches have demonstrated effectiveness in most settings. Application of preferred provider/supplier approaches can reduce purchasers’ costs in all markets, including high-cost markets, if market parameters are expanded to include high-quality providers in less costly markets outside the local area. One example is medical tourism.

Model programs and hybrid applications usually include combinations of value-based design features and approaches. Most model programs include several program components and features, making it difficult to assess the specific impact of individual interventions. It is important to consider utilization across services to assess impact. Most purchasers also assess productivity, including absenteeism and disability costs, in considering ROI.

In terms of prevalence, the Mercer National Survey of Employer-Sponsored Health Plans reports that less than 20 percent of responding large employers use value-based insurance plans, but that, in 2007, 81 percent of employers with 10,000 or more beneficiaries were interested or very interested in implementing value-based insurance designs.⁷ While few employers surveyed used tiered provider networks, where copayments are lowered for high-value providers, more than half were interested in introducing tiered performance networks in the future.⁸ Approximately one-quarter of employers structure beneficiary incentives for participation in disease management programs. Of these, almost half provide beneficiaries with a direct monetary incentive.⁹ Among the employers who have implemented a value-based approach are Caterpillar, the city of Springfield in Oregon, Dell, Dow Chemical, Gulfstream, IBM, Marriott, PPG Industries, and the State of Washington.¹⁰ Forthcoming evaluations are pending on the University of Michigan's MHealthy: Focus on Diabetes project and Aetna's Post-MI [myocardial infarction] Free Rx Event and Economic Evaluation trial.

The Pitney Bowes Case

To implement its value-based insurance design model, Pitney Bowes shifted all diabetes drugs and devices from tier 2 or 3 formulary status to tier 1. Over the next year, overall direct healthcare costs per plan participant with diabetes decreased by 6%. In addition, the rate of increase in overall per-plan participant health costs at Pitney Bowes has slowed markedly, with net per-plan-participant costs in 2003 at about \$4,000 per year versus \$6,500 for the industry benchmark. In all of Pitney Bowes' self-funded plans and a few of the others, drug benefits are provided by a carved out pharmacy benefit manager. This coverage of approximately 90% of all employees under one common pharmaceutical plan provides a potentially powerful single point of entry for studying—and leveraging—long-term disease outcomes in the Pitney Bowes population.¹¹

Another Pitney Bowes effort eliminated co-payments for cholesterol-lowering statins and reduced them for a blood clot inhibitor called clopidogrel. The change resulted in an immediate 2.8% increase in adherence to statins relative to controls and, for clopidogrel, a four-percentage point difference in adherence rate between intervention and control patients a year later.¹²

Oregon's Public Employees' Benefit Board and Educators Benefit Board Case

Oregon's Benefit Boards design and purchase benefits for the two largest employee groups in the state: 128,000 state and university employees and dependents for Oregon's Public Employees' Benefit Board and 155,000 public education employees and dependents for Oregon's Educators Benefit Board.¹³ In 2010, Oregon's Benefit Boards implemented value-based insurance design programs. The Oregon plans incorporate two types of value-based insurance designs. First, the plans increase copayments for overused or preference-sensitive services of low value. Second, the plans offer preventive and high-value services at low or no cost.¹⁴ These plans organize health plan benefits—not only pharmaceutical benefits—into three tiers. Tier 1 covers preventive and high-value services at low or no cost. Tier 2 is standard and includes some cost sharing. Tier 3 is designed to reduce the use of low-value services by including a separate deductible, higher out-of-pocket maximums and higher coinsurance. The tiers, however, are designed to not impede access to essential care.¹⁵ Given the reform was implemented in 2010, no evaluation evidence exists.

ALTARUM INSTITUTE integrates objective research and client-centered consulting skills to deliver comprehensive, systems-based solutions that improve health and health care. A nonprofit serving clients in the public and private sectors, Altarum employs more than 350 individuals and is headquartered in Ann Arbor, Michigan with additional offices in the Washington, DC area; Sacramento, California; Atlanta, Georgia; Portland, Maine; and San Antonio, Texas.

Mission

Altarum serves the public good by solving complex systems problems to improve human health, integrating research, technology, analysis, and consulting skills.

Vision

Altarum Institute demonstrates and is sought for leadership in identifying, understanding, and solving critical systems issues that impact the health of diverse and changing populations. Altarum is acknowledged as a valued, collaborative, and collegial institute of the utmost competence and integrity.

EVIDENCE FOR ACTION

- There are many value-based insurance design approaches, including targeted incentives, targeted health promotion and disease management, targeted copayments, non-targeted incentives, preferred providers and suppliers, and model programs and hybrid applications. While evidence on value-based design is limited, this is in part due to the many forms that it can take and the difficulty in compiling results in any one area.
- The evidence of effects of value-based insurance design are strongest in the pharmaceutical sector, where several employers are attempting value-based initiatives.
- While reducing copayments for high-value prescription therapies increases their use, according to existing evidence, it is unclear whether this increased use results in improved health outcomes and controls or reduces other health care costs.¹⁶
- The evidence base is stronger in the type of value-based approaches that reduce or eliminate cost sharing for services that show clinical benefit than for approaches that increase cost sharing for services that do not show clinical benefit.
- The strategy of linking copayments to the value of health care services can be designed in several different ways. It can be applied based on a patient's clinical criteria, to a group of patients participating in a disease management program, for specific drugs or services regardless of indication, or for drugs in a therapeutic class. It takes different levels of information and patient management sophistication to administer these different designs. For example, linking copayments to a patient's clinical criteria requires highly developed information and patient management systems.¹⁷
- It has been challenging for most employers to assess and achieve return on investment of value-based insurance designs. One complication of generalizing the results of ROI analyses is that value-based insurance designs are varied, making it difficult to draw conclusions and build an evidence base for any one type of design strategy.

This issue brief is part of a series on value-based purchasing prepared by researchers in the Systems Research and Initiatives Group at Altarum Institute. It highlights summary findings of environmental scans and evidence reviews completed in December 2010 to identify and assess "what works" to improve value in health care purchasing and health system performance.

For more information: www.altarum.org or contact Gloria N. Eldridge, PhD, MSc at gloria.eldridge@altarum.org.

¹ Fendrick, A. M., Smith D. G., & Chernew, M. E. (November, 2010). Applying value-based insurance design to low-value health services. *Health Affairs* 29, 2017-2021.

² Houy, M. (January, 2009) *Value-based Benefit Design: A Purchaser Guide*. Washington, DC: National Business Coalition on Health. Retrieved December 20, 2010, from <http://www.nbch.org/NBCH/files/ccLibraryFiles/Filename/00000000222/VBBD%20Purchaser%20Guide.pdf>.

³ Fendrick, A. M. (July, 2009). *Value-based Insurance Design Landscape Digest*. Reston, VA: National Pharmaceutical Council. Retrieved December 28, 2009, from http://www.sph.umich.edu/vbidcenter/pdfs/NPC_VBIDreport_7-22-09.pdf.

⁴ Op. cit., Houy, M, (2009).

⁵ Hunt, S., Maerki, S., & Rosenberg, W. (April, 2006). Assessing Quality-Based Benefit Design. California HealthCare Foundation and Pacific Business Group on Health."Retrieved January 20, 2010, from <http://www.pbgh.org/documents/PBGH-CHCFQualityBenDesignPWC-04-2006.pdf>.

⁶ Ibid.

⁷ Choudhry, N. K., Rosenthal, M. B., & Milstein, M. (2010). Assessing the evidence for value-based insurance design. *Health Affairs*, 29,1988-1994.

⁸ Ibid.

⁹ Ibid.

¹⁰ Op. cit., Houy, M. (2009).

¹¹ Mahoney, J. J. (August, 2005). Reducing patient drug acquisition costs can lower diabetes health claims. *The American Journal of Managed Care*, 11, S170-S176.

¹² Choudhry, N. K., Fischer, M. A., & Avorn, J., Sebastian Schneeweiss, C.D., Berman, C., Jan, S., et al. (2010). At Pitney Bowes, value-based insurance design cut copayments and increased drug adherence. *Health Affairs*, 29, 1995-2001.

¹³ Kapowich, J. M. (2010). Oregon's test of value-based insurance design in coverage for state workers. *Health Affairs*, 29, 2028-2032.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Op. cit., Choudhry, N. K., Rosenthal, M. B., & Milstein, M. (2010).

¹⁷ Ibid.