



Key Points

- ▲ The concept of value-based insurance design (VBID) is still evolving, but it can be part of a broader effort to better align financial incentives with improvements in value and quality of care. There are a number of issues policymakers should address as they consider whether and how to include VBID as part of health reform.
- ▲ If benefit package requirements are included as part of insurance market reforms, the requirement should be flexible enough to allow for VBID. Policymakers can also help facilitate the implementation of VBID by encouraging and financing additional comparative effectiveness research as well as by supporting improvements to the current health care system's information infrastructure.

Value-Based Insurance Design

National health care spending continues to increase dramatically, but there is mounting evidence that the money being spent for health care services is not providing enough value. Indeed, improving the quality of health care is a vital component to comprehensive health reform. Initiatives like value-based insurance design (VBID) are being discussed to address the disconnect between health care spending and health care outcomes.

The goal of optimizing patient health through more effective utilization of health care services can be advanced by implementing VBID. Through the structuring of plan design incentives, VBID can be used to lower the financial barriers to high-value treatments (i.e., those with evidence of clinical benefit). The principle underlying VBID rests on the premise that quality health care can be achieved in a cost-effective manner by encouraging the use of high-value services and discouraging the use of low-value services. Restructuring health insurance plans to provide more incentives for patients to receive better quality and more effective care can help refocus the health care system on value rather than volume, especially if the provider payment system is restructured accordingly, as well.

The American Academy of Actuaries' Health Care Quality Work Group developed this issue brief to define value-based insurance design, provide an overview its prevalence, examine the barriers to implementation, and review policy considerations related to VBID adoption and implementation.

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BACKGROUND

Insurance plan design features can be used to affect the utilization of services. For instance, higher cost-sharing requirements can reduce utilization, and lower cost-sharing requirements can increase utilization. However, cost-sharing requirements and other plan design features don't necessarily distinguish between services that are important to receive and those that are not. Indeed, high cost-sharing requirements can create barriers to and underutilization of beneficial treatments, such as the appropriate use of maintenance drugs and preventive services. Alternatively, low cost-sharing requirements can encourage overutilization of less beneficial (and even dangerous) treatments, such as the inappropriate usage of medications or needless surgeries.

In addition, current plan designs seldom recognize the unique characteristics of an individual; instead there is a one-size-fits-all approach. Even today's consumer-directed health plans, which are designed to provide individuals greater control over their health care spending, are generally implemented with a one-size-fits-all approach, with benefits the same across the board for all individuals. Consumer-directed health care assumes that when individuals have control over their health care spending, they will purchase only what they need, thereby lowering aggregate costs. However, a body of evidence exists that demonstrates that higher copays reduce the use of both high- and low-value services because individuals are not able to distinguish between them.¹

With VBID, health insurers are taking consumer-directed health care to the next level and lowering cost barriers to high-value services that otherwise might be delayed or avoided in order to save money. VBID entails a modification of plan design features to encourage the use of services with evidence of clinical benefit, and discourage the use of services with little or no evidence of clinical benefit. It is useful in grouping services into higher- and lower-value categories based on the cost of the service and the degree of clinical benefit. A higher-value service, for example, would have a clinical benefit commensurate with its cost.

Most VBID programs are currently focused on a few key chronic conditions for which failure to comply with key standards of care may lead to sudden, catastrophic claims. As part of current VBID, services related to these conditions—diabetic medications, supplies, and medical visits; hypertension medication; and asthma medication—often receive favorable cost-sharing arrangements, thus reducing the financial barriers to care. These lower cost-sharing requirements are often available only to those individuals who participate in a disease management program or otherwise demonstrate compliance with required standards of care. As the utilization of VBID gains prevalence in the health care system, treatments could be personalized to a specific individual's needs rather than relying on what works best for the broader population with similar symptoms. However, to maintain budget neutrality, the payer might raise copays for other services,

¹J.P.Newhouse and the Insurance Experiment Group. *Free for All? Lessons from the RAND Health Insurance Experiment*. Cambridge, Mass.: Harvard University Press, 1994; T.B. Gibson, R.J. Ozminkowski, and R.Z. Goetzel, "The Effects of Prescription Drug Cost Sharing: A Review of the Evidence." *American Journal of Managed Care*. 2005: 11:730–740; T. Rice and K.Y. Matsuoka, "The Impact of Cost-Sharing on Appropriate Utilization and Health Status: A Review of the Literature on Seniors." *Medical Care Research and Review*. 2004: 4:415–452; and M. Heisler, et al., "The Health Effects of Restricting Prescription Medication Use because of Cost." *Medical Care*. 2004: 7:626–634.

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especially those having evidence of low value.

Value-based insurance design is closely linked to the expansion of comparative effectiveness research. The results from comparative effectiveness studies would provide valuable information on which patients respond better to certain treatments and help guide more informed coverage and cost-sharing decisions for VBID programs.

Financial barriers are not the only barriers posed in patient compliance with high-value care. Even in the most generous benefit plans, compliance will never be 100 percent. There are varied reasons people do not obtain recommended care, including an aversion to the side effects of medication, forgetfulness, fear of certain medical procedures, time constraints, and mental illness. A VBID program should be implemented with consideration of these other deterrents, and should be part of a comprehensive strategy to manage the whole patient.

Prevalence and Examples of Value-Based Insurance Design

In 2001, Mark Fendrick and Michael Chernew developed the concept of “benefit-based copays,” a plan design structure intended to lower cost-sharing for high-value services in order to promote better health outcomes.² Since then, there has been an increase in the prevalence of what is now referred to as VBID—using medical evidence on health outcomes to target cost-sharing. Although theoretically this concept can be applied to all medical treatments, VBIDs’ primary focus to date has been on prescription drug benefits.

Three specific examples of VBID programs that have been studied follow. All of these are examples of programs implemented for prescription drug benefits, and while these studies

represent preliminary evidence, in each case they indicate that a reduction in copays correlated with increased compliance with specific drug regimens.

In 2002, Pitney Bowes, Inc. implemented a VBID program that reduced copays on prescription drugs for diabetics. An evaluation of the Pitney Bowes’ plan found that diabetic patients’ compliance with the prescribed drug regimen increased and pharmacy costs decreased.³ The reduction in pharmacy costs resulted from a reduction in complications and, therefore, the need for more expensive drugs. The study also concluded that the new benefit design was likely responsible for the company’s average annual increase in employee health costs being below national benchmarks.

Turning now to another example, an unidentified large employer reduced copays for five chronic medication classes and required participation in a disease management program. A 2005 study compared the experience of this large employer to a control employer using the same disease management program.⁴ The study concluded that the reductions in copays by the subject employer led to increased compliance for four of the five medication classes, reducing non-adherence from between 7 percent to 14 percent.

The final example is a special, targeted program that was launched in Asheville, N.C., involving diabetics covered by self-insured employer health plans and 12 community pharmacies. Interventions included a series of disease management techniques, including patient education and reimbursement of community pharmacists for diabetes management. A home blood glucose monitor was given to patients at no cost, and copays were waived for all diabetic drugs and supplies. An evaluation of the program concluded that the interven-

² Fendrick, Mark, D.G. Smith, M.E. Chernew, S.N. Shaw. “A Benefit-Based Copay for Prescription Drugs: Patient Contribution Based on Total Benefits, Not Drug Acquisition Cost.” *American Journal of Managed Care*. 2001: 7:861-867.

³ Mahoney, John. “Reducing Patient Drug Acquisition Costs Can Lower Diabetes Health Claims.” *American Journal of Managed Care*. 2005: 2 sup 5:S170-176.

⁴ Chernew, M.E., M.R. Shaw, A. Weigh, et al. “Impact of Decreasing Copayments on Medication Adherence Within a Disease Management Environment.” *Health Affairs*. 2008: 27:103-112.

tions improved outcomes while reducing direct medical costs.⁵

Challenges/Success Criteria

While clinicians and employers generally agree that there is merit in pursuing VBID, there are several challenges that must be overcome to successfully implement such plans. Michael Chernew, Allison Rosen, and Mark Fendrick outline several of these challenges, including:⁶

Initial Cost: The premise of VBID is to reduce cost barriers to high-value treatments. However, reducing these barriers can increase near-term plan and employer costs, even if long-term costs associated with emergency room visits and hospitalizations are reduced. Employers may find it especially difficult to increase near-term costs in an economic downturn when they are under pressure to reduce those costs, especially if expected long-term benefits may not be realized because of employee and member turnover.

Implementation and Ongoing Administrative Costs: In order to implement individualized cost-sharing arrangements, VBID requires research, data analysis, and the use of technology to identify high-value services, target patient populations, and share information between payers and providers. These capabilities require financial resources and entail close coordination between payers and providers, both of which pose challenges.

Systems and Data Challenges: Recently utilized claim systems have significantly increased the use of auto-adjudication to settle claims. A VBID implementation would require these systems to recognize a particular individual's characteristics to determine whether to waive or adjust cost-sharing arrangements. These systems also would need to capture additional data that are not historical-

ly captured as part of medical and pharmacy claims information (e.g., historical information from prior carriers, health history, and risk factors such as smoking status, biometric information, and clinical results data).

Insufficient Research: The ability to determine the relative value of selected treatments and services is crucial for value-based insurance design. Current protocols often lack medical evidence to support their application. As such, additional comparative effectiveness research is needed to determine the relative value of services for conditions beyond the more prevalent chronic diseases.

Barriers to Personalization: Implementing a program that is not one-size-fits-all may increase demands on the employer's human resource department, as some employees may object to being charged more than others for the same service. When an employee population is represented by a trade union, employers may seek union approval for personalization of cost-sharing. A potential for gaming is also an issue, as some providers and insureds may be tempted to misreport information in order to lower the cost-sharing requirements.

Regulatory and Legal Issues: While existing programs have generally overcome legal barriers, questions remain regarding how preventive services for chronic diseases might fit within the definition of preventive services for health savings accounts (HSAs). Additionally, the Medicare Health Support programs have limited ability to provide patient incentives that would encourage the use of high-value services for those with chronic diseases.

Privacy Concerns: HIPAA privacy regulations restrict the identification and transfer of sensitive patient information, which may limit the ability to create personalized VBID programs.

⁵ Cranor, C.W., B.A. Bunting, and D.B. Christensen. "The Asheville Project: Long-Term Clinical and Economic Outcomes of a Community Pharmacy Diabetes Care Program." *Journal of American Pharmacists Association*. 2003: 43:173-184.

⁶ Chernew, M.E., Allison Rosen, and Mark Fendrick. "Value-Based Insurance Design." *Health Affairs*. 2007: 26:195-203.

Unintended Incentives: Lowering copays for all products may encourage patients to use brand-name drugs over generics. This can be managed if VBID programs are designed to take this into account, possibly by retaining somewhat higher copays for brand-name drugs.

Adverse Selection: Insurance plans that lower cost-sharing requirements for certain treatments or for plan participants with certain conditions may attract participants with those conditions and seeking those services. This potential for adverse selection can be a particular concern when employees are offered multiple plan options.

Human Element: Even if services are free, individuals may have other reasons for failing to comply with appropriate standards of care. They may dislike the side effects associated with treatment, forget, or simply decide not to follow the treatment regimen. Open and repeated communication between employers/clinicians and employees/patients is critical for program success.

Implications for Public Policy

The concept of value-based insurance design is still evolving, but it has the potential to help transform the health care system into one that aligns high-value services with individuals' medical needs. Its development is part of a broader effort to better align financial incentives with improvements in value and quality of care. There are a number of issues policymakers should address as they consider whether and how to include VBID as part of reform.

If benefit package requirements are included as part of insurance market reforms, the requirement should be flexible enough to allow for VBID. However, plans with VBID components could attract a disproportionate share of enrollees with chronic conditions, especially if VBID plans are offered alongside of more traditional plans. To avert this outcome,

it would be appropriate to consider inclusion of a risk-adjustment mechanism could help to mitigate the impact of such adverse selection. Such risk adjustment could be particularly appropriate if premiums are not allowed to vary by health status.

Policymakers can also help facilitate the implementation of VBID policy by encouraging and financing additional comparative effectiveness research. Much of the health care currently provided in this country does not have an underlying evidence base and is of unknown value. When new treatments are introduced, not enough information is known on how they compare to already existing treatments. Comparative effectiveness research can help determine the relative value of different treatment options, including both new and existing treatments. This information can then be incorporated into the technical design of VBID.

Finally, the adoption of VBID can be encouraged by supporting improvements to the current health care system's information infrastructure. Primarily, this could include the development and integration of health information technology systems and electronic medical records, as well as the standardization and collection of data to identify gaps in care and opportunities for quality improvement. Additionally, efforts need to be undertaken to develop support for broader public education efforts on key standards of care and individual responsibility related to health issues such as obesity, asthma, diabetes, and chronic heart disease.

By favorably considering these issues for inclusion in health care reform, policymakers have an opportunity to mitigate some of the barriers to VBID adoption and implementation, thereby maximizing the potential for VBID to improve the quality and value of health care delivery system.