



# HEALTH PERSPECTIVES

Current Issues in Healthcare

## Value-based insurance design (VBID): Questions adopters should ask

By Kathryn Fitch, RN, MED

The United States spends far more on healthcare than any other country, but by many measures our outcomes are worse than other advanced countries—a disturbing combination of low value, high cost, and poor outcomes. While employers, insurers, and social insurance programs can always cut their costs by reducing benefits, an innovative approach, value-based insurance design (VBID), examines the evidence base and cost-effectiveness of covered services as well as the quality of the providers delivering the covered services. While VBID holds promise, it also raises some questions for adopters.

### What is VBID?

VBID is intended to encourage customer demand for medically necessary utilization of evidence-based, cost-effective medical services and also to discourage demand and utilization of medical services with a weak evidence base and/or low value. The approach involves creating clinically sensitive copay structures: low or no copays for cost-effective services with a strong evidence base and high copays or no coverage for services with a weak evidence base. VBID shifts the benefit design from one based on legacy to one based on value. The design tailors copays to the evidence base of specific services for targeted groups, targeted interventions, or individual patients, measuring value by clinical and economic benefit. While cost-sharing can indirectly impact providers, VBID mostly attempts to influence the member.

Key design concepts for VBID include

- lowering copays for services known to be of high value (e.g., Betablockers post-heart attack, flu shots for eligible individuals, tobacco cessation programs, and hospice benefits for the terminally ill)
- targeting patients with select clinical diagnoses and lowering copays for high-value services (e.g., diabetes drug therapy and annual eye exams for diabetic members). In some cases, copays

are adjusted by a patient's severity level (e.g., reduced statin copay for high-risk individuals)

- lowering copays for members utilizing quality providers
- lowering copays for patients as a reward for reaching certain treatment adherence levels

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Although the term VBID may be relatively new, the approach has been used for years by managed-care plans that eliminate copays for particular preventive services, including childhood immunizations, well-baby visits, and cancer screenings. Although the VBID concept could apply to any medical service, much of the focus to date has been on drug-therapy copay designs for chronic diseases (especially diabetes), with the intent to improve adherence.

#### IN THIS ISSUE:

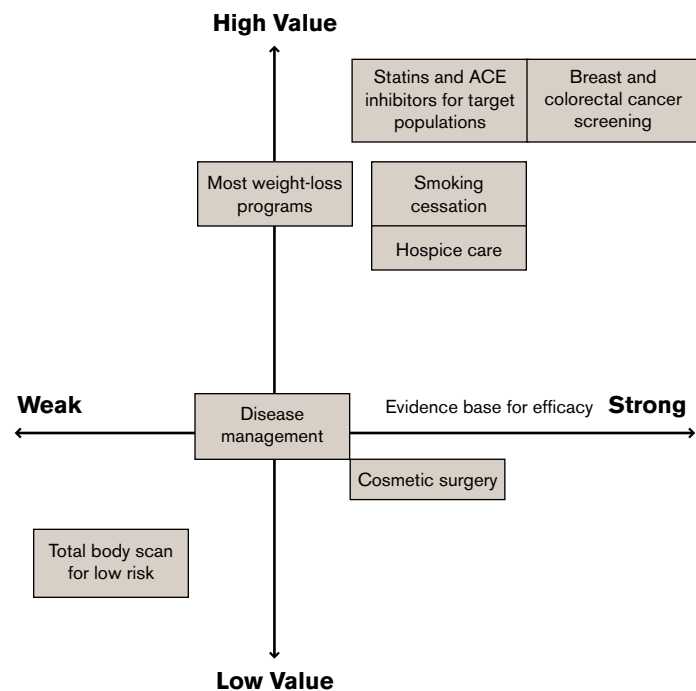
<b>VALUE-BASED INSURANCE DESIGN (VBID): QUESTIONS ADOPTERS SHOULD ASK</b>	<b>1</b>
<b>DESIGNING EFFECTIVE CONSUMER-DRIVEN HEALTHCARE</b>	<b>5</b>
<b>FOREIGN EXCHANGE: INTERNATIONAL BENEFIT DESIGN</b>	<b>8</b>
<b>LETTER FROM THE DIRECTOR</b>	<b>12</b>

VBID fits well with recent healthcare trends including consumer-driven health plans (CDHPs), evidence-based medicine, comparative effectiveness research, pay for performance (P4P), disease management (DM), and wellness/prevention programs. More broadly, the payer community seems to have embraced the concept of aligning payment with evidence-based/value-based healthcare delivery. Initiatives include CMS nonpayment for “never events,” value-based purchasing initiatives, eValue8, Leapfrog Group, and Bridges to Excellence. At the same time, with the establishment of the University of Michigan Center for VBID and the Center for Health Value Innovation, interest and support is growing among policy organizations.

### How should adopters evaluate benefits for copay adjustment?

Figure 1 provides a framework to evaluate benefits that might be targeted for VBID. The right upper quadrant, labeled the VBID quadrant, identifies benefits that have high efficacy and value and might be considered for no or low copays. The placement of benefits in certain quadrants is illustrative, rather than definitive. For example, we considered that landmark statin and ACE-inhibitor therapy studies for indicated populations report significant reduction in adverse health events. We placed these in the VBID quadrant. Smoking cessation therapies have an established evidence base and, because a significant portion of working-age adults smoke (23% based on Milliman analysis of NHANES 2005–2006), we placed a smoking-cessation benefit in the VBID quadrant.

Figure 1: Framework for Evaluating the Value of Benefits



### What implementation issues should adopters consider?

Several considerations for payers arise when integrating VBID into benefit strategies:

- Potential for short-term increase in utilization and cost**  
 For example, if VBID is intended to increase adherence with targeted drugs, pharmacy spend will increase. The expectation is that with better adherence there will be better control and fewer exacerbations of chronic conditions requiring emergency room and inpatient care, but this outcome is less certain.
- Cost of operational implementation**  
 Implementation will be more costly for programs that target patients as opposed to services. To target patients, eligibility data must be transferred from the payer to the point of service, which is more administratively burdensome.
- IT infrastructure (point-of-service identification)**  
 The systems for point-of-service claims administration need to be developed. If particular patients are targeted, algorithms will need to identify particular disease states, compliance levels, and other factors.
- Insufficient evidence/research to target services and patient groups**  
 Without a comparative-value agency such as the U.K.'s National Institute for Clinical Excellence, there is not adequate research in the United States in some disease areas to differentiate between high- and low-value services. Still, sufficient evidence is available to support VBID in selected diseases.
- Communications/Human Resources role**  
 Effectively communicating to all members/employees about VBID is essential to avoid confusion and to encourage target patient groups to appropriately utilize medical therapies.
- Antidiscrimination barriers**  
 Some individuals may raise discrimination concerns as to why only particular diseases are targeted for VBID.
- Privacy**  
 Identification of members/employees is required for programs that vary by patient group; HIPAA privacy regulations remain a concern.
- Unintended incentives**  
 If copays are lowered on brand drugs to the same level as generics, patients may not have the same incentive to use generics when there is an option. VBID designs typically reduce copays on generics significantly more than for brands.
- Adverse selection**  
 There is some concern that VBID plans may attract a disproportionate number of patients with chronic conditions, although VBID could positively impact member/employee retention.

### What outcomes are realistic to expect?

Adopters should expect both a reduction in inappropriate utilization and increased compliance with indicated healthcare services, resulting in improved clinical outcomes and potentially reduced

costs. Although there are numerous studies confirming the elasticity between increasing copays and reduced utilization (without regard to clinically sensitive copay increases), there are few studies analyzing the impact of decreasing copays on utilization for clinically sensitive healthcare services. To date only three published studies report the positive impact of reducing copays on adherence, two of which report a reduction in medical costs.<sup>1, 2, 3</sup>

It is difficult to extrapolate these findings to other VBID populations. Outcomes are not only dependent on the copay structure chosen, but also on care-management initiatives, incentives, changes in provider reimbursement, and other benefit-design modifications that may be implemented in conjunction with a VBID initiative. Because medical cost trend is affected by multiple variables, it is difficult to tease out the direct impact of VBID.

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When copays are reduced, we know that utilization and therefore costs for the VBID-targeted benefit will go up. We don't know whether clinical status will improve for enough of the targeted population to offset the costs associated with increased benefit uptake. It is critical to measure outcomes; specifically, increased uptake/adherence with targeted therapies and appropriate clinical outcome metrics associated with the targeted therapy. In particular, the definition of adherence should be established for VBID-targeting drug therapy. What portion of the targeted population achieves 80% or higher medication possession ratio (MPR)? Increased adherence from four months to six months for 30% of the population may not have the intended clinical benefit when studies typically indicate optimal clinical benefit with an 80% or higher MPR.

### How do you price VBID?

Reducing copays means reducing member cost sharing, so it makes sense that the plan's costs will increase. Reducing cost sharing also takes away some financial disincentives in order to increase utilization, which also increases plan cost—the concept of price elasticity. Some VBID advocates argue that better compliance (which they associate with higher utilization) will reduce costs over time, but this can be remarkably difficult to substantiate. To price a reduction in copays, actuaries adjust utilization upward for the targeted benefit by elasticity factors and apply the lower cost sharing amounts to produce net per-member-per-month (PMPM) amounts. This calculation captures the impact of the lower cost sharing on the existing utilization as well as the additional utilization induced by the lower cost sharing.

Here's an example of how VBID could work when used with statin therapy for high-risk cardiovascular individuals. Individuals at high risk for cardiovascular events (those with a history of coronary artery disease or diabetes) decrease their risk of heart attacks and strokes by close to 50% with high-efficacy statin therapy, yet studies report poor adherence rates with statins. Assuming approximately 3% of a commercially insured population would be considered high risk and on statin therapy, we priced two VBID designs. Figure 2 provides a simplified example of the PMPM cost of moving from a standard copay design to a VBID design for statin drugs for high-risk individuals.

Figure 2

### Illustrative example:

#### Statin Agents for High-Risk Individuals for Commercial Population

Starting with a standard benefit copay design of 10/25/40:

- High-risk individuals on statin agents fill about seven prescriptions per year with 10/25/40 benefit and cost about \$.90 PMPM (net of cost-sharing).

VBID #1: Decreased cost-sharing to 10/12.50/30:

- Elasticity increases prescriptions per person to about eight prescriptions per year.
- Payer cost increases by about \$.40 PMPM (net of costsharing).

VBID #2: Decreased cost-sharing to 0/0/0:

- Elasticity increases prescriptions per person to about nine prescriptions per year.
- Payer cost increases by about \$.80 PMPM (net of costsharing).

Going from a benefit copay design of 10/25/40 to 0/0/0 increases payer costs by \$.80 PMPM. (In practice, the actuary would consider a particular account's mix of generics and brands and the therapeutic substitution for the calculation.) The wild card is VBID impact on clinical outcomes. What portion of those who were considered noncompliant now increase consumption to the point of gaining the benefit of reduced heart attacks and strokes? Examining a baseline distribution of medication adherence for the population taking statins, and evaluating the portion at relatively full compliance (perhaps 80% or higher MPR) before and after copay adjustments for statins, will give a more realistic metric for evaluating success with the program. The economic impact for those achieving "full compliance" could be estimated by monetizing the reduction in heart attacks and strokes reported with statin therapy.

## Are there trade-offs to pay for VBID?

Cost savings from VBID are not a guarantee, yet the potential for positive clinical impact remains compelling. Some plan sponsors may want to consider adjusting copays for other benefits to pay for VBID. The VBID concept is not just about reducing copays; it implies increasing copays or eliminating coverage for low-value benefits and those without an evidence base. Figure 3 compares the VBID incremental costs developed in Figure 2 to typical costs for other types of benefit options that employers can choose.

Figure 3: Comparative Value

Benefit	Typical Cost PMPM
VBID statin options in this report	\$ .40 to \$.80
Disease management for coronary artery disease (total cost)	\$.50 to \$1.00
Chiropractic care (total cost)	\$.30 to \$2.30
Decrease inpatient admissions by 1.7 per 1,000 members (typically < 4% reduction)	Save \$1.40 to \$1.50
Decrease spinal surgery and bariatric surgery by 20%	Save \$.30 to \$.70
Increase generic utilization by 10%	Save \$1.00 to \$3.00

## Where should an organization start?

The natural place to start on VBID is with a look at the current benefit design and experience. Legacy benefit designs and state insurance mandates can be obstacles to VBID, but we believe a thorough, evidence-based examination of benefit structures and experience will reveal many practical VBID options. This will typically involve a multidisciplinary team with a clinical expert in evidence-based medicine, a utilization-management process expert, a benefit specialist, a pricing actuary, and a marketing/sales representative. Elements of the initial analysis include:

- an in-depth claims analysis to benchmark clinically sensitive population utilization, such as analyzing drug adherence rates for chronically ill cohorts to identify opportunities for VBID (while pharmacy benefit management (PBM) and/or DM vendors should perform these analyses, the health plan may want to control the data analytics)
- a shopping list of conditions and/or drug classes most often identified in the literature as targets for VBID

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- target conditions for VBID from an analysis of medically avoidable admissions from the medical management department
- identification of benefits with low value or weak evidence base
- healthcare Effectiveness Data and Information Set (HEDIS) scores opportunity areas
- market demand related to particular conditions

After potential populations and/or therapies and services are chosen, advisory panels and test marketing may lead to refinement or changes. Key elements of planning, implementation, and operation include:

- developing positive messages for the market
- pricing the benefit-design change
- evaluating options for cost trade-offs
- establishing benchmark utilization and clinical outcome metrics
- ongoing measurement and reporting of targeted benefit utilization and clinical outcomes
- consideration of implementation barriers

Better information and new technology means VBID will resemble continuous quality improvement—a process rather than an endpoint. Thought of in this way, VBID has the potential to deliver its promise of increasing the value, quality, and cost effectiveness of healthcare utilization.

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