The Search for Value: Value-Based Insurance Design in Both Public and Private Sectors

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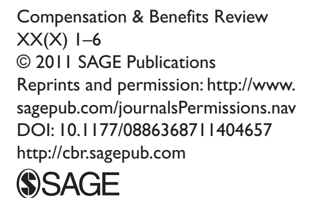

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Abstract

In the quest to harness health plan value, over the past few years a number of companies have started to experiment with value-based insurance design (VBID). Although the popularity of the concept had been growing in private industry, its inclusion in the Patient Protection and Affordable Care Act thrust VBID into the limelight. Which employers should contemplate adding a VBID element to their health plan, and what should they make of the recent VBID regulatory action? This article answers these questions and informs health benefits managers on how to leverage the use of a VBID to extract more value out of their health plan.

Keywords

VBID, value-based insurance design, Patient Protection and Affordable Care Act, PPACA

Over the past few years, a new idea in health plan design has caught the attention of health benefits professionals. The premise behind value-based insurance design (VBID) is elegant in its simplicity: encourage high-value medical treatments and discourage low-value medical treatments by altering their associated cost-sharing requirements. Implementing a VBID element into a health plan entails a paradigm shift, removing the focus away from undiscerning cost minimization and toward value maximization.

By adapting this type of strategy, the experimenting companies have produced real value out of their health plans, in essence transforming a balance sheet liability into an asset. Early benefits from VBID implementation include healthier employees, decreased absenteeism and lower health costs, to name a few.

Although VBID is still in its infancy, benefits professionals are excited by the early empirical results. However, an equally important part of the promise of VBID is the health reform law's incorporation of the concept. Some provisions in the new law, such as the mandate to offer preventive care services for free, essentially require health plans to institute parts of VBID into their existing plans. Moreover, recent activity from several federal agencies suggests that future regulations may force plans to adopt even more aspects of VBID down the road. In a health care regulatory era where lawmakers increasingly stress value over volume, VBID could stand at the fore.

Despite its promise, the VBID movement is not necessarily a panacea for spiraling health costs and tighter federal regulation because long-term practical limitations present themselves under the surface. Still, from a strategic standpoint, health plans currently without a VBID component should at least give serious consideration to embracing the new concept. Introducing a VBID aspect to a health plan already supporting a value strategy with, say, an existing wellness plan or a disease management program would be a logical and complementary step. Even taking on a VBID strategy as a stand-alone structure would still bring value to a company's health plan, as it could fully function and improve the performance of a health plan without any additional parts.

Given the movements within the health plan industry to seek out high value, health benefits managers should know how the VBID concept works today and why companies are including the concept in their long-term strategy. Knowing why VBID is only now coming to fruition and how the health reform law provisions will influence strategy down the road are also important considerations.

How VBID Works

One can best see the functionality of VBID through a classic example. Individuals with high blood concentrations of low-density lipoprotein cholesterol are at high risk for developing coronary heart disease later on in life, but a

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cardiologist can effectively moderate this risk by placing the patient on a regular statin, such as Atorvastatin. A steady statin regimen paired with healthy eating habits and regular exercise can allow a patient to lead a healthy life without a future trip to an operating room.

Of course, this should not surprise anyone—we have known about the efficacy of statins for years.[1] But one of the biggest challenges is getting the patients to continue filling and taking their prescriptions.[2] High health plan–assessed prescription drug co-payments can serve as a major deterrent, driving employees away from their simple prevention plan even if the employee's out-of-pocket costs are small.[3] A basic theory of economics states that individuals respond to incentives as well as disincentives.

The VBID premise, holding this basic theory dear, states that employee co-payments should be lowered or eliminated for statins because of the relative value they yield for health plans. Given the choice between subsidizing an employee's $2-a-day drug cost and potentially covering an expensive heart bypass surgery at a charge of upwards of $100,000, most health plan administrators would not hesitate to jump at the former.

Granted, cost-sharing requirements are an effective tool to combat prescription drug overutilization.[4] Nonetheless, when the overutilization costs are small relative to the value the drug produces—including major costs averted in the future, as is the case with statins—access barriers to the drug should be lifted. Removing the disincentive, at least in part, to encourage healthy high-value treatments, then, serves as the logical response.

Prescription statins have yielded high value in the drug intervention realm for heart disease. The same can be said for prescription drug therapy for patients suffering from diabetes or asthma. However, VBID is not strictly confined to pharmaceuticals. Medical treatments such as HIV screenings and H1N1 influenza vaccinations also have a track record of providing high value to both the patient and health plan, thus receiving the praise of VBID users.[5] But regardless of the drug or intervention, the primary focus on maximizing value over minimizing cost differentiates VBID from most other plan designs.

History of VBID

Although the idea of VBID implementation continues to build momentum in both the public and private sectors, the concept itself is relatively old by health care policy standards, celebrating its 10th birthday this year. A team of researchers from the University of Michigan, led by Fendrick and Chernew, pioneered the idea back in 2001.[6] Focused on prescription drugs, this beta version of VBID advocated a value-maximization strategy by lowering patient co-payments for drugs with proven high potential benefits.

As the new decade progressed, the idea was refined to extend beyond drug strategies to include different types of medical interventions.[7] Extending the focus on value by increasing co-payments for low-value interventions has also developed.[8] A list of such low-value medical treatments, their alternatives and their relative cost-effectiveness is shown in Table 1.[9]

Within the past few years, two versions of VBID implementation have emerged for self-insured plans.[10] In a "basic" VBID approach, a health plan targets high-value clinical treatments for co-payment reduction across the board. Little more is needed in this approach than empirical evidence that a drug or other intervention provides good relative value. Once the data support a high-value claim, a benefits administrator would decrease co-payment levels or, for extremely high-value drugs, eliminate cost sharing altogether, for the given treatment across the board for any and all employees.

In contrast, in an advanced VBID model, a plan pays more individualized attention to participants and changes their specific co-payments based on their medical profile. For example, an individual who recently had a heart attack would have his or her co-payment reduced for prescription beta-blockers, a proven high-value treatment in preventing subsequent heart attacks in the future.

However, the same reduction would not be available, and in fact the co-payment might even be increased to deter overutilization, for someone without heart problems who takes the drug to combat performance anxiety. The advanced VBID model has the extra benefits of extracting as much value as possible while limiting waste using a customized system, although it does require much more sophisticated information systems to keep track of the large amounts of patient data.

Although the structure of a VBID continues to evolve, the principle of focusing on value continues to stand as the underlying theme. No better example of harnessing the benefits of VBID exists than of Pitney Bowes, one of the first major corporations to implement VBID into their self-insured health plan.[11]

Case Study: Pitney Bowes

Pitney Bowes, the large mailing equipment and services company, has been widely recognized for its comprehensive, innovative approach to solving problems in areas of employee health and wellness.[12] Led at the time by the Director of Strategic Healthcare Initiatives, Dr. Jack Mahoney, MD, Pitney proposed an idea in the fall of 2001, which although radical at the time, would come to resemble the VBID concept we see today. In the midst of increasing medical expenses, Dr. Mahoney persuaded Pitney to pay for a greater share of employee's diabetes and asthma medications.

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Table 1. Various Low-Value Medical Treatments

Service	Compared With	Cost-Effectiveness (2007 U.S. Dollars)
Lung volume reduction surgery	Continued medical treatment	$100,000-300,000 per QALY[a]
Left ventricular assist devices	Optimal medical care	$500,000-1.4 million per QALY
Pemetrexed to treat non–small cell lung cancer	Docetaxel	$870,000 per QALY
	Erlotinib and docetaxel	Increases cost and results in worse health outcomes
Positron emission tomography in Alzheimer's disease	Standard examination	Increases cost and results in worse health outcomes

a. Quality-adjusted life year (QALY): A standard value assessment metric for medical interventions.

Dr. Mahoney believed that if more employees with chronic conditions took their prescribed medications, then the company would stand to benefit by reducing overall costs for those individuals. Mahoney's hunch was validated after the company performed a study that found that employees with chronic conditions that only filled their prescriptions two thirds of the time or less became the biggest liabilities on the company's plan. Although it added an additional $1 million to the plan's expenses each year, Mahoney convinced senior management to lower coinsurance rates for all asthma and diabetes patients to 10%.

The results were impressive. Lower co-payments meant that patients were given access to convenient maintenance drugs, leading to better compliance with their disease management programs. Better compliance led to a decreased utilization in rescue therapies and emergency treatments, not to mention a healthier, more productive overall employee workforce.

At a time when health costs for other Pitney employees were increasing to the tune of 11% a year, the average amount spent on prescription drugs by asthma and diabetes patients decreased 10% with adherence to the new strategy. However, the strategy did not just break even on the initial investment. Emergency room visits for diabetes and asthma patients plummeted 35% and 20%, respectively.

As a result of high employee compliance rates and a decrease in emergency room visits, Pitney's strategy returned $1.33 in savings for every dollar it spent during a 3-year follow-up period.[13] In other words, by focusing less on lowering costs, Pitney, paradoxically, lowered costs. The asthma/diabetes value strategy made Pitney's health plan look more like an asset than a liability.

Now, it must be said that the results seen at Pitney Bowes were not the sole product of adopting a VBID strategy. Pitney had cultivated a culture of health many years prior to its co-payment reduction plan, brought about in no small part because of Dr. Mahoney's innovative designs. However, Pitney only developed a basic version of VBID in which it did not discern between individuals' particular needs. As the next section will show, it did not have the luxury of adopting a more advanced model because of practical constraints.

Nevertheless, early empirical results show that building a strategy focused on prevention and patient compliance is far more effective in harnessing value than deterring patients from sticking to their treatment by maintaining high cost-sharing arrangements. Although it certainly is not the only company that has adopted VBID, Pitney is the largest and deserves attention for its original strategy.

VBID Today

Benefits administrators are only now beginning to warm to the idea of VBID, largely because VBID was well ahead of its time when it first became part of the health care policy discussion. The theory of a value-based design made sense on paper, but practical limitations made its implementation impossible. Recent advances in disease management and health information technology as well as coordination with other value-based initiatives, however, promote and complement the usage of VBID. With the practical barriers sufficiently addressed, administrators who originally warmed to the idea are now pushing ahead with implementation.

The past decade witnessed a new approach to caring for patients with complex, multifaceted health conditions. The rapid growth of disease management, exemplified in the Pitney Bowes case study, created a necessary stimulus for the utilization of VBID. Managing a patient's diabetes or arthritis through a series of proactive measures rather than responding to symptoms as they individually appeared proved much more cost-effective for health plans, but the challenge of getting patients to acquiesce to the action plan still remained difficult. However, if disease management provided the need for increase adherence, then VBID provided the solution.

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Through both the basic and advanced versions of VBID, health benefits managers can remove co-payment obstacles to help increase adherence to disease management programs. Whereas Pitney reduced co-payments on diabetes and asthma treatments to 10%, many companies have waived certain cost-sharing requirements in their entirety. Moreover, some corporations are even considering paying employees to adhere to their treatment plan.

As radical as this may seem, we have already witnessed the successful use of subsidies in health and wellness plans, such as employers reimbursing employees who obtain fitness club memberships and awarding gift prizes for employees reaching fitness benchmarks. The takeaway here is that successful disease management strategies still require that employees meet the health plan halfway. Using VBID to entice participants with the proverbial carrot is a powerful tool.

Another development that has further encouraged the use of VBID has been the rise in health information technology.[14] A health plan with a heterogeneous mix of participants might find it logistically impossible to keep track of which patients receive which incentives, especially if the participant pool grows larger and the plan uses a disease management system. With the advancement of health information systems over the past decade, the ability to keep track of these great amounts of information removed an important barrier for the implementation of a VBID.

Health plans that toyed with the idea of rolling out a basic VBID model, let alone the aforementioned advanced VBID plan, would not be able to do so without an advanced data system. But given both a health plan's increased data system functionality and increased health information technology capacity in hospitals and physician offices, managing and connecting the myriad sums of data is not as daunting. Moreover, information systems allow health plans to experiment with pilot programs by analyzing the data retrospectively. This way, hesitant companies can test the waters before jumping into the deep end.

Finally, interaction with other value-based initiatives complemented and thus stimulated the usage of VBID. Health and wellness plans, closely related to disease management and preventive care measures in general, work well when customized with a VBID. In the example used earlier, providing an incentive to keep a patient with high cholesterol on a statin regimen effectively keeps his or her low-density lipoprotein count in a manageable range. However, pairing this incentive with incentives to regularly visit a gym and purchase healthy food in the company cafeteria yields great benefits for both the patient and the health plan.

Plans with a consumer-driven health plan aspect can also coordinate with a VBID to nudge patient decisions in the right direction.[15] In essence, a health benefits manager can amplify the benefits of an existing value-based institution by pairing it with a VBID. One need not look any further than at Pitney Bowes, which was able to maximize the value of its VBID by coordinating it with an existing wellness plan and consumer-driven strategies.

Practical considerations made VBID adoption virtually impossible only 5 to 10 years ago. However, changes in the past decade have removed many of the barriers, allowing benefits managers to effectively make use of this tool. Notably, not only do the recent developments make the use of VBID more effective, but VBID also aids plans rolling out the programs listed above. The mutual relationship benefits all parties.

The Health Reform Impact

After Congress passed the Patient Protection and Affordable Care Act (PPACA) in March of 2010, it soon became apparent that the law stressed value over volume in the health care system as an underlying theme.[16] From a health care provider's standpoint, value propositions such as accountable care and patient-centered medical homes have started to change the delivery aspect of medicine in the new decade. However, PPACA's value proposition first made its impact on the health plan side of the industry by requiring non-grandfathered plans to offer preventive care services.[17]

Although not explicitly described as such, the preventive care mandate in Section 2713 is actually the first time the federal government has mandated implementation of elements similar to a VBID. As subsequent regulations have circumscribed the reach of the provision, non-grandfathered plans must now offer a number of preventive medical services free of any beneficiary cost sharing.[18] Clearly, the law seeks to encourage individuals to seek regular, low-cost screenings to catch a health problem before it is too late.

But more important than the stated public health mission is the mandate of high-value health services. Preventive care, as long as the condition screened for is relevant to the individual at hand (e.g., a prostate exam for a 25-year-old man has a very low value profile), is among the highest value services a physician can perform. Most disease screenings or oral vaccinations are very low in cost yet yield very high benefits in early detection or prevention. Such a low-cost, high-benefit profile is the value-seeker's holy grail. And because high value is synonymous with cost reduction, it is no surprise that the law would mandate preventive care with a national health cost inflation crisis at hand.

But the biggest giveaway of PPACA's interest in VBID comes in the very same provision of the law that mandates preventive care services. Section 2713(c) states that "the Secretary may develop guidelines to permit a group health plan and a health insurance issuer offering group

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Table 2. Highlighted Queries From the RFI

What constitutes "high-value" and "low-value" treatment settings, providers or means of delivery?
What are the best methods for reevaluating plan design features and monitoring the effects of VBID on patient care, out-of-pocket costs and group health plan costs?
What are the data requirements and administrative costs associated with implementing VBIDs for a wide range of preventive services based on population characteristics?
How are prescribing physicians and other network providers informed of VBID features and encouraged to steer patients to value-based services and settings?
How are consumers informed about VBID features in their health coverage?

Note. VBID = value-based insurance design; RFI = request for information.

or individual health insurance coverage to utilize value-based insurance designs."[19]

As vague as this provision might sound, in the final days of 2010, the Departments of Health and Human Services, Labor, and the Treasury collectively issued a request for information (RFI) seeking information on the best practices of VBID in the context of preventive care.[20] Selected queries proposed by the departments can be seen in Table 2. Submissions from professionals in the field were collected up until the end of February.

So what can we expect from the RFI? At the very least, the inquiring agencies are exploring new ways to implement mandated preventive care, and instituting a VBID infrastructure could be one such way. However, the agencies could also be looking to do more with VBID, going as far as to mandate its use in non-grandfathered plans. This possibility not only would resonate with PPACA's underlying theme, but it would also further the preventive care provisions outlined in Section 2713. Another option would be to set co-payment ceilings for various prescription drugs or treatments, based entirely on the relative value each intervention delivers.

We can speculate as to what role the government wants to play in value-based design, but at the end of the day it still remains a fact that federal authorities were given the option to explore VBID and have apparently seized on that opportunity. What this means for employers is unclear, but history has already shown us that health plans that act ahead of legal regulations have a much easier time acclimating than those that decide to wait. One does not need to look beyond even the events stemming from implementation of Section 2713 to put this in context. Non-grandfathered health plans that maintained high preventive care cost-sharing requirements found themselves scrambling after the passage of PPACA and the relatively quick follow-up regulations.

Important Considerations

VBID shows great promise when deliberately integrated as a strategy in a health plan. Over the past several years, empirical results have verified VBID's theoretical underpinnings, and companies that carefully unveiled the new designs reaped profits in health plan savings. Given the recent events out of Washington, it looks like VBID may take an even bigger role in public health as we enter the new decade. Nevertheless, VBID is not a miracle drug for all health plans, and serious drawbacks exist for particular plans.

The central goal of VBID is to create value. Companies that are unable to harness this value, however, will find that a VBID strategy will not work. One such scenario where a company would be advised not to roll out a VBID would be in an industry with a high rate of employee attrition. VBID necessarily relies on an employer investing extra resources into an employee's health in the short term to create long-term savings.

For example, usage of daily statins to control blood cholesterol levels requires an upfront investment that may take many years to aggregate realized savings. If the average employee tenure is much less than the time it will take for these long-term savings to accrue, then a VBID strategy would be misplaced. However, this is not to say that all VBID initiatives take decades to pay off. Pitney Bowes' cost-sharing reduction plan for diabetes and asthma patients was successful after only 3 years because these patient groups exhibit more immediate and acute complications arising from noncompliance with a disease management program. In this context, a VBID strategy would work even in a company with much higher employee turnover.

Another potential obstacle exists with the legal implications of rolling out a VBID strategy, particularly for plans that fall under the purview of federal or state anti-discrimination statutes. For example, a value-based program such as a wellness plan typically will violate the Health Insurance Portability and Accountability Act's nondiscrimination provisions if the conditions for obtaining a wellness reward are based on an individual satisfying a standard related to a health factor.[21]

If they are carefully crafted, however, most wellness programs work by rewarding participation in initiatives such as diagnostic testing rather than the outcomes produced from the tests. Although a detailed legal analysis

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on whether certain VBID structures violate antidiscrimination statutes is beyond the scope of this article, it is nonetheless a consideration benefits managers must be cognizant of should they wish to proceed with implementation.

Conclusion

Former Supreme Court Justice Louis Brandeis once remarked that U.S. states were the "laboratories of democracy."[22] By this Justice Brandeis reflected his view on scientifically produced public policy—the idea being that the federal government enacted laws that were first successfully tested on the state level. Given the corporation's role in providing health insurance in the United States, it would not be unreasonable to include their role within the reach of this metaphor as well—public health initiatives are often first cooked up by corporate health plans. PPACA validated this fact when it signed many health insurance provisions into law that had been experimented with, successfully so, by corporate plans in the years leading up to the legislation. One such provision is VBID.

It still is unclear what exactly the government will do with VBID, but the recent RFI suggests that it may be something significant. Given the likelihood of this action as well as the potential benefits VBID can confer on a health plan, health benefits managers should give serious consideration to using the concept to add value to their company plan.

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Notes

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Bio

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