Value-Based Insurance Design: Shifting the Health Care Cost Discussion from How Much to How Well

INTRODUCTION

In the 1990s, a multidisciplinary team of researchers at the University of Michigan led by A. Mark Fendrick, MD, developed a concept to restructure health benefit designs so they better supported the clinical indications for care. The concept, ultimately named Value-Based Insurance Design (V-BID), was intended to increase consumer adherence with recommended care guidelines by aligning consumer out-of-pocket costs with the potential clinical benefit of certain health services and medications.

This brief describes the history of the V-BID initiative at the University of Michigan, its current status of private and public sector implementation, and its future directions.

Overview and History of Value-Based Insurance Design

Consumer out-of-pocket costs, such as copayments and co-insurance, are often uniform for all services and medications within a specific pharmacy tier. This payment structure is used despite evidence-based differences in clinical benefit. While increased cost-sharing does reduce the use of marginally valuable treatments, it also decreases the use of highly valuable services like cancer screenings, clinician visits, and drugs for chronic diseases. As a result, consumers may not receive critical preventive screenings, or adhere to prescription medications necessary to manage chronic conditions. As evidence accumulated that cost-related non-adherence was a real and growing problem, U-M researchers hypothesized that aligning consumer out-of-pocket costs with the potential benefit of the service or medication would increase the utilization of services that have been demonstrated to be effective.

In 2001, U-M researchers first published this concept, initially described as benefit-based copay, in the American Journal of Managed Care. The basic premise was to reduce barriers to high-value clinical services and providers, and to discourage the use of services and providers that are of lower value—aligning consumer out-of-pocket expenditures with value. V-BID is driven by the concept of clinical nuance, which recognizes that: (1) medical services differ in the benefit provided; and (2) the clinical benefit derived from a specific service depends on the patient using it, as well as when and where the service is provided. With a focus on prescription drugs, researchers suggested that consumer out-of-pocket costs should vary by the evidence-based benefit the medication will provide for a particular consumer. For example, metformin, a drug that has been proven to help patients manage diabetes, should have a lower copayment than finasteride, a drug that promotes hair growth.

2. Ibid.
In subsequent publications, researchers detailed two possible approaches to implementation of benefit-based copayments. One approach focused on reducing copayments for specific clinical services and medications, while the second approach varied copayments based on patient characteristics. For example, using the first approach, a health plan could reduce copayments for all patients prescribed beta-blockers, a class of drugs used to manage a variety of conditions including heart failure, high blood pressure, and abnormal heart rhythm. Alternatively, using the second approach, a health plan could target patients with congestive heart failure, and reduce their copayments for beta blockers. V-BID implementation programs have utilized both approaches; however, due to the more sophisticated requirements of the second approach, the first is more common.11

After the initial publication on the concept of benefit-based copay, U-M researchers coined the term Value-Based Insurance Design (V-BID). As V-BID began to gain traction in the media, the Center for V-BID at the University of Michigan was launched in 2005. The Center operates collaboratively with the University of Michigan School of Public Health (UMSPH), the University of Michigan Medical School, and the University of Michigan Institute for Healthcare Policy and Innovation (IHPI). The Center also receives guidance from a diverse advisory board and collaborative scholars who work together to advance the V-BID concept. Since its inception, the goal of the Center has been to promote the development, implementation, and evaluation of insurance benefit programs that incorporate V-BID principles.

The Center uses faculty-conducted research studies to provide evidence to further promote the incorporation of V-BID principles in health insurance benefit designs. Additionally, this research provides further insight into the potential and limitations of V-BID plans in practice. Through these studies, the Center has begun to explore the impact V-BID could have in new realms, such as high-deductible health plans, Medicare, and specialty medications. In addition to research, the Center also works to educate private and public sector stakeholders to increase understanding of the V-BID concept, and assist in the creation and improvement of V-BID programs. The Center accomplishes this through local and national conference presentations, as well as academic presentations. Additionally, the Center hosts national symposia which aim to unite V-BID research with ongoing health care transformation efforts and inform researchers, health plans, and employers on the latest V-BID policies.

12 University of Michigan Institute for Healthcare Policy & Innovation: http://ihpi.umich.edu/
13 The University of Michigan Center for Value-Based Insurance Design.
17 The University of Michigan Center for Value-Based Insurance Design.
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
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<td>Jill A. Berger</td>
<td>Marriott International, Inc.</td>
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<tr>
<td>Andy Chasin</td>
<td>Blue Shield of California</td>
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<tr>
<td>Michael Chernew</td>
<td>Harvard University</td>
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<tr>
<td>Paul Fronstin</td>
<td>Employee Benefits Research Institute</td>
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<td>Marge Ginsburg</td>
<td>Center for Healthcare Decisions</td>
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<td>Thaddaeus A. Gormas</td>
<td>Michigan Senate</td>
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<td>Stuart Guterman</td>
<td>The Commonwealth Fund</td>
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<td>David Hom</td>
<td>Scio Health Analytics</td>
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<td>David Mirkin</td>
<td>Milliman, Inc.</td>
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<td>Tim McDonald</td>
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<td>Marci Nielsen</td>
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<td>Tom Parry</td>
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<td>Lonny Reisman</td>
<td>Unaffiliated</td>
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<td>Jeff Rideout</td>
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<td>James Robinson</td>
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<td>Patricia R. Salber</td>
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<td>Lewis G. Sandy</td>
<td>UnitedHealthcare</td>
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<td>William Shrank</td>
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<td>Michael Sokol</td>
<td>Sanofi</td>
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<td>Jason Spangler</td>
<td>Amgen</td>
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<td>Kathryn Spangler</td>
<td>American Benefits Council</td>
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<td>Mark Stebach</td>
<td>Alkermes</td>
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<td>Prasun Subedi</td>
<td>Pfizer</td>
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<td>Brian Sweet</td>
<td>AstraZeneca</td>
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<tr>
<td>Andrew Webber</td>
<td>Maine Health Management Coalition</td>
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*SOURCE: U-M Center for Value-Based Insurance Design-Advisory Board.*
Early support for the concept of V-BID first came in 2004, when Pitney Bowes, a large employer that provides documents, packaging, and mailing and shipping services, reported cost savings in the Wall Street Journal after implementing V-BID principles. After reducing employee copayments for several classes of prescription medications that aide in chronic disease management, the company initially experienced a savings of at least a million dollars in health care costs. The results of the Pitney Bowes V-BID implementation were detailed in two Health Affairs publications in which researchers concluded that decreased cost-sharing increased consumer adherence to medications that have been proven effective in disease management. Researchers further concluded that this increased adherence could lead to improved health outcomes. Other major employers from a variety of sectors, including but not limited to Marriott, and Blue Cross Blue Shield of North Carolina have seen similar improvements in medication adherence and utilization of preventive services after reducing or eliminating out-of-pocket costs for prescription drugs and medical services in a manner that resembles the V-BID concept.

### FIGURE 2

**Key Peer-Reviewed Publications of V-BID Implementations within the Private Sector**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Study Period</th>
<th>Key Aspects</th>
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| Mayo Clinic23                       | January 2002-December 2007 | • Removed all cost-sharing for primary care and preventive services (including colorectal screening and mammography)  
• Increased cost-sharing for specialty care, imaging, and outpatient procedures  
• Expanded primary care capacity          |
| Marriott24                          | January 2005-December 2005 | • Eliminated copays for selected generic drugs  
• Reduced copays 50% for selected brand-name drugs  
• Targeted medication classes: ACE inhibitors, ARBs, beta-blockers, diabetes control, statins, inhaled corticosteroids  
• Implemented disease management program |
| Novartis Pharmaceuticals25          | January 2005-December 2007 | • Reduced copays for selected generic and brand name drugs  
• Targeted asthma, high blood pressure, and diabetes control medications  
• Implemented disease management program |
| Florida Health Care Coalition26      | January 2006-December 2008 | • Reduced coinsurance rates for selected generic and brand name drugs (to 10% from 10-35%)  
• Targeted diabetes control medications  
• Implemented disease management program |
| Pitney Bowes27                      | January 2007-December 2007 | • Eliminated copays for selected generic and brand name drugs for patients with history of diabetes and vascular disease  
• Reduced in copays for selected brand name anti-platelet drugs  
• Targeted medication classes: statins, anti-platelets  
• Implemented disease management program |
| Sponsors of Blue Cross Blue Shield of North Carolina-administered Plans28 | January 2008-December 2008 | • Eliminated copays for selected generic drugs  
• Reduced copays for selected brand-name drugs  
• Targeted medication classes: metformin, diuretics, ACE inhibitors, beta-blockers, statins, calcium-channel blockers |

See page 7 for footnotes
Null.
The U-M Center for V-BID has led efforts to develop, research, evaluate, and advocate health insurance benefit designs that incorporate V-BID principles. The Center began formal advocacy efforts in 2006 with the goal of presenting the merits of V-BID and educating stakeholders on its policy relevance. Lead researchers from the Center utilized peer-reviewed publications, media reports, and case studies of V-BID implementations to make their case. V-BID gained momentum after the 2008 presidential election, when health care reform emerged as a priority and both parties searched for ideas to improve quality of care. V-BID researchers then built a diverse coalition of stakeholders including labor unions, patient advocacy groups and payers. The first attempt to introduce V-BID into legislation came in 2009, when Republican Senator Kay Bailey Hutchinson and Democratic Senator Debbie Stabenow introduced the Seniors’ Medication Copayment Reduction Act, which directed the Secretary of Health and Human Services to develop a demonstration program to incorporate V-BID principles for Medicare recipients with chronic conditions. The bill remained in committee, but was the first of several draft bills and reports put forth in the House and the Senate that included V-BID principles.

The first major policy milestone for V-BID came in 2010, when the Patient Protection and Affordable Care Act was signed into law incorporating V-BID principles in Section 2713 (c): “The Secretary may develop guidelines to permit a group health plan and a health insurance issuer offering group or individual health insurance coverage to utilize value-based insurance designs.” The law allows the Secretary of the Department of Health and Human Services to implement guidelines that allow health plans to utilize principles of V-BID. The final 2713 regulation included a broad definition of V-BID: “Value-based insurance designs include the provision of information and incentives for consumers that promote access to and use of higher value providers, treatments, and services.” Other national accomplishments include the recommendation for V-BID in the HHS National Quality Strategy, the Institute of Medicine Essential Health Benefits Report, and several Medicare Coverage Payment Committee reports to the U.S. Congress. In 2013, the Centers for Medicare and Medicaid Services (CMS) finalized rules that enabled V-BID in state Medicaid programs by allowing flexibility in determining cost-sharing structures for drugs and certain patient visits (CMS-2334-F).

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36 The University of Michigan Center for Value-Based Insurance Design.
38 Ibid.
39 Ibid.
Momentum continues to grow for V-BID in national health reform. In July 2014, the Value-Based Insurance Design (V-BID) for Better Care Act of 2014 was introduced by Reps. Diane Black (R) and Earl Blumenauer (D) to the House Ways and Means Committee. A companion bill was introduced by U.S. Senators John Thune (R) and Debbie Stabenow (D) in September 2014. If passed, the Act will direct the Secretary of Health and Human Services to establish a demonstration program that incorporates V-BID principles. This would allow Medicare Advantage plans to reduce out-of-pocket costs for beneficiaries with chronic conditions. The Act would also prohibit plans from increasing out-of-pocket costs to discourage the use of services. If results of the demonstration project suggest that the incorporation of V-BID principles leads to lowered cost and increased quality of care for enrollees, the Act would then allow for the expansion of the demonstration program.

Correspondingly, the Centers for Medicare & Medicaid Services released a request for information seeking input on ways to innovate Medicare Prescription Drug Plans, Medicare Advantage and Medicare Advantage Prescription Drug Plans, Medicaid managed care plans (Medicaid plans), Medigap plans, and Retiree Supplemental health plans. Specifically, CMS requested suggestions on innovations that may reduce cost, improve quality and increase consumer satisfaction within health plans, including but not limited to V-BID.

V-BID has garnered significant bipartisan support which has enabled its implementation at both the state and national levels. Several state employee programs such as those in Connecticut, Oregon, Virginia, and New Jersey have implemented V-BID principles. Additionally the V-BID concept has been incorporated into state Medicaid programs, including those in Michigan and New Mexico.

(FIGURE 3 page 10)
### State Implementations of V-BID

<table>
<thead>
<tr>
<th>State</th>
<th>Key Aspects</th>
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<tr>
<td>Connecticut</td>
<td>Implemented V-BID principles into a labor agreement with the State Employee Bargaining Agent Coalition (SEBAC) in 2011.</td>
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<tr>
<td>Michigan</td>
<td>Incorporated V-BID principles into Michigan’s Medicaid expansion, The Healthy Michigan Plan, which was passed in 2013.</td>
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<tr>
<td>New Jersey</td>
<td>Introduced a bill (A-1214) to create a 3-year pilot program to increase health benefits for state employees with chronic conditions. Bill tabled in chamber in January 2014.</td>
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<tr>
<td>New Mexico</td>
<td>Included V-BID principles in Centennial Care, New Mexico’s Medicaid expansion program, in 2014.</td>
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<tr>
<td>Oregon</td>
<td>Incorporated V-BID into state employee health plans in 2010. Oregon Health Policy Board established value-based benefit criteria for publically funded plans and suggested criteria for commercial plans.</td>
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<tr>
<td>Virginia</td>
<td>Proposed the 3-year Virginia Health Innovation Plan that incorporated V-BID elements first into the State Employee Health Plan in January 2014, and eventually into the Virginia Chamber’s Employer Collaborative and the Medicaid Expansion Population.</td>
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50 Ibid.
51 Ibid.
Challenges

Cost—The effect of V-BID on cost remains a challenge to further implementations. The majority of V-BID implementations have operated by decreasing cost sharing for effective clinical services and medications. However, past implementations have suggested that reduced cost sharing for patients does not lead to cost-savings for payers. Additionally, public and private sector payers who incorporate V-BID often face costs of implementation, which involve identifying eligible clinical services, medications, and patients to target for copayment reductions. This often requires sophisticated data systems and data transfers across multiple organizations, which can increase costs.56

Data—The further spread of V-BID is also dependent on the ability to identify target patient groups through claims data. Many V-BID implementations have focused on patient groups that are easily identified through existing data sets, such as diabetic patients who can be identified through pharmaceutical data. In order to target a variety of patient groups, more sophisticated data systems are necessary. This may be facilitated by the increased use of electronic medical records.57

Research—The availability of research that identifies effective clinical services and medications for copayment reductions is critical to the spread of V-BID.58 Additionally, current V-BID implementation programs focus on lowering copayments for services and medications that research has determined to be effective. Ideally, V-BID implementations would also raise costs for health care that research has suggested yields a lower benefit. However, this aspect of V-BID programs will likely be met with controversy.59

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57 Ibid.
CONCLUSION

For more than a decade, the U-M Center for Value-Based Insurance Design has worked to promote the adoption of V-BID principles in health insurance plans. Public and private sector V-BID implementation programs have resulted in increased medication adherence, decreased consumer out-of-pocket costs and varied costs to payers. The U.S. health care system will continue to undergo reforms to further improve the quality of care, address rising health care costs and gaps in care coverage. As these reform discussions continue, innovative cost containment methods will be further tested and evaluated. Developed by a multidisciplinary team of U-M researchers, the V-BID concept is an example of how health services research can be translated into policy and practice.


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