

Optum

Value-based insurance and network design

Combat rising costs and improve quality



Introduction

Before the COVID-19 pandemic, the United States spent 17.8% of its gross domestic product on health care – more than any other high-income country.¹ This trend has remained stable for the last 10 years.² Despite the high cost of health care, the United States still ranks last out of 10 other high-income countries in health care outcomes.³ Cost sharing strategies have been introduced as a way to control these costs and eliminate low-value care while simultaneously providing a pathway to improve outcomes.

Since 2016, health care premiums have outpaced average inflation rates by 11%. And the average, general annual deductible for health plans has increased by 17%.⁴ Eighty-five percent of Americans are covered by a plan with a general annual deductible.⁵ These cost increases place more stress on individuals and families and the systems in which we live.

Cost sharing is increasing in the United States with no decrease in health care costs or increase in quality. A simple strategy of cost sharing is therefore unlikely to combat the current health care crisis in the United States. On the other hand, value-based insurance design (V-BID) may be a potential answer to combat rising costs while promoting quality.

V-BID history and expansion

The central premise of V-BID is to pull financial levers to:

- Incentivize services associated with improved quality and cost
- Disincentivize services with limited quality or where benefits do not outweigh costs⁶

V-BID is not a new concept. Linking out-of-pocket costs to the value of specific benefits – instead of basing this association on cost of services alone – was first published in 2007.⁷ The movement gained traction in 2010 when the Affordable Care Act (ACA) adopted this strategy. The ACA requires health plans to cover certain preventive services at no cost to members.⁸

Over time, this strategy has been widely endorsed. The most recent example was seen during the COVID-19 pandemic response. Payers, both private and government, provided COVID-19 testing, vaccinations and treatments at no costs to members.

Most of the historically available studies focused on pharmacy benefit structure. Yet V-BID has been shifting focus toward a more strategic view of cost sharing. The following are recent examples of V-BID and financial incentive study results.



17.8%

of gross domestic product spent by U.S. on health care



17%

average increase on annual deductible for health plans

1. Papanicolas I, Woskie LR, Jha, A.K. [Health care spending in the United States and other high-income countries](#). *JAMA*, 2018; 319(10), 1024-1039.
2. Organisation for Economic Co-Operation and Development. [OECD Stat](#). 2021.
3. Schneider EC, Shah A, Doty MM, Tikkanen R, Fields K, Williams II RD. [Mirror, mirror 2021: Reflecting poorly. Health care in the U.S. compared to other high-income countries](#). Fund Reports. Aug. 4, 2021.
4. Kaiser Family Foundation. [2021 Employer Health Benefits Survey](#). Nov.10, 2021.
5. Ibid.
6. National Center for Chronic Disease Prevention and Health Promotion. [Issue brief: Understanding value-based insurance design](#). June 2015.
7. Center for Value Based insurance Design. (n.d.). [About V-BID](#).
8. Ibid.

V-BID research results



Evaluation report of the first three years (2017–2019) of the Medicare Advantage Value-Based Insurance Design Model Test

This report summarizes findings and outcomes of the current Center for Medicare and Medicaid Services (CMS) V-BID condition-driven innovation model. V-BID was associated with a statistically significant:

- Increase in targeted high-value services
- Decrease in lab testing
- Increase in durable medical equipment use
- Reduction in skilled nursing facility visits
- Decrease in out-of-pocket (OOP) cost sharing
- Reduction in Part D bids

No impact of clinical outcomes was noted.

Eibner C, Khodyakov D, Taylor EA et al. [Evaluation report of the first three years \(2017–2019\) of the Medicare Advantage Value-Based Insurance Design Model Test. Project Report](#). Sept. 2020.



How to make value-based health insurance designs more effective? A systematic review and meta-analysis.

V-BIDs were associated with increased medication adherence in:

- Asthma
- Diabetes
- Heart disease

The greatest correlation between medication adherence and V-BID was seen in heart disease. Full generic coverage of medications was associated with twice the adherence rate compared to other plans. Some correlation was noted between plans with and without educational interventions. But those results were not statistically significant.

Krack G. [How to make value-based health insurance designs more effective? A systematic review and meta-analysis](#). *European Journal of Health Economics*. 2019; 20(6): 841–856.



Do out-of-pocket costs affect medication adherence in adults with rheumatoid arthritis? A systematic review.

Higher OOP costs were associated with increased non-adherence to RA medications. The study authors acknowledged care would need to be taken to ensure OOP costs are not an “intolerable burden for providers and insurers.”

Heidari P, Cross W, Crawford K. [Do out-of-pocket costs affect medication adherence in adults with rheumatoid arthritis? A systematic review](#). [Abstract only] *Semin Arthritis Rheum*. 2018; 48(1):12–21.



Effect of out-of-pocket cost on medication initiation, adherence and persistence among patients with Type 2 diabetes

This observational study on the impact of OOP costs on diabetes medication adherence used administrative data. It found an OOP cost of \geq \$20 was associated with twice the risk of primary non-adherence (medication not dispensed) compared to an OOP of \$0. The authors noted a relationship between OOP costs and early non-persistence (meaning a medication is dispensed once and never refilled). But there was no difference between OOP costs and late-stage non-persistence (meaning a medication was discontinued in 24 months).

Karter AJ, Parker MM, Solomon MD et al. [Effect of out-of-pocket cost on medication initiation, adherence, and persistence among patients with type 2 diabetes: The Diabetes Study of Northern California \(DISTANCE\)](#). *Health Services Research*. 2018; 53(2), 1227-1247.



Value-based insurance design improves medication adherence without an increase in total health care spending

This systematic review evaluated the impact of cost-sharing reduction on:

- Medication adherence
- Health care spending
- Health care service utilization
- Quality outcomes

The authors found that decreases in cost sharing were associated with increased medication adherence. Limited information was available on the impact of V-BID strategies on clinical outcomes and no effect on total health spending was noted.

Agarwal R, Gupta A, Fendrick AM. [Value-based insurance design improves medication adherence without an increase in total health care spending](#). *Health Affairs*. 2018; 37(7), 1057-1064.



The impact of increased cost-sharing on utilization of low value services: Evidence from the State of Oregon

As part of a NBER working paper series, the authors examined a V-BID program of a public employer in the state of Oregon. They found that copayments for low-value care procedures were significantly increased. This resulted in a reduction of targeted services by an average of 11.9%:

- 20% for sleep studies and low-value orthopedic surgeries
- 12% for endoscopies
- 7.7% for advanced imaging

It's important to note that other cost-sharing increases occurred during the same period. Quality outcomes were not documented.

Gruber J, Maclean JC, Wright BJ, Wilkinson ES, Volpp K. [The impact of increased cost-sharing on utilization of low value services: Evidence from the State of Oregon](#). National Bureau of Economic Research. Dec. 2016.



Impact of a value-based formulary on medication utilization health services utilization and expenditures

An evaluation of a value-based formulary (VBF) on:

- Medication costs
- Medication utilization
- Facility visits
- Outpatient visits
- Total costs

Introduction of a VBF payment structure along with an increase in OOP medical and maximum deductibles and an increase in emergency copayment resulted in an increase of \$2 per member per month (PMPM) and a \$10 decrease in PMPM health plan medication costs. Other utilization and expenditures did not change.

Yueng K, Basu A, Hansen RN, Watkins JB, Sullivan SD. [Impact of a value-based formulary on medication utilization health services utilization and expenditures.](#) *Medical Care.* 2017; 55(2): 191-198.



Association between drug insurance cost sharing strategies and outcomes in patients with chronic diseases

This is a systematic review of chronic condition outcomes and their relationship with cost-sharing strategies. The presence of drug coverage was associated with increased adherence. The study results on the impact of cost sharing on medication adherence and other medical outcomes varied, however:

- Larger copayments may be associated with lower adherence, especially in populations with lower socioeconomic status
- Individuals with a 100% copayment had a two-fold reduction in adherence

Mann BS, Barnieh L, Tang K et al. [Association between drug insurance cost sharing strategies and outcomes in patients with chronic diseases: A systematic review.](#) *PLOS One.* 2014; 9(3), e89168.

Despite multiple studies, V-BID's impact on total costs have varied. One potential cause of this discrepancy may be related to the nature of chronic condition and prevention management. For example, it's widely accepted that medication adherence will improve chronic condition management. But lowering the cost of medications and improving adherence will also increase short-term treatment costs.

Within the United States, cost increases may be magnified by a lack of prescription cost regulation. It's also difficult to quantify or prove a "missed" complication cost – especially within populations where members move in and out of plans or provider settings over time.

V-BID design considerations

V-BIDs can take many forms. But the common objectives are to:

- Maximize the positive impact of expenditures
- Restructure benefit from cost to clinical value
- Increase adherence to evidence-based services through cost-sharing strategies⁹

Methods to accomplish these objectives are commonly approached through one or more of the following four lenses

Lenses of V-BID¹⁰

Targeted services

Reduces or eliminates cost sharing for high-value services OR increases costs in low-value services

Condition

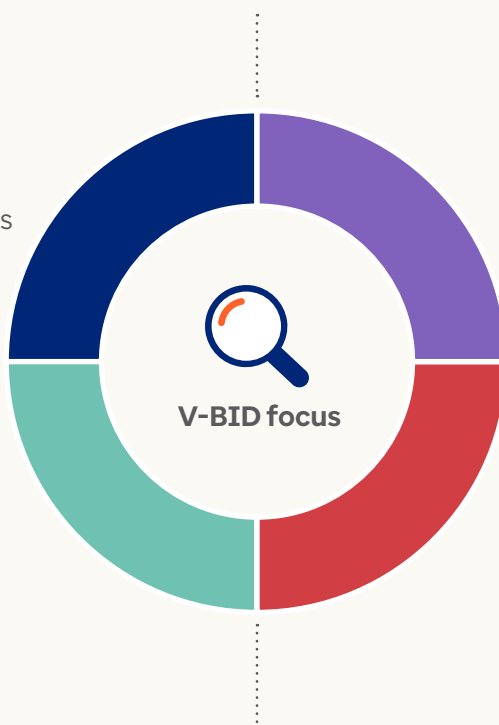
Reduces or eliminates cost sharing for specific conditions

Condition severity

Reduces or eliminates cost sharing for high-risk patients

Disease management

Reduces or eliminates cost sharing for patients participating in disease management programs



At first glance, V-BID seems poised to address the quintuple aim of:

- Improved population health
- Improved experience of care
- Increased access to care
- Decreased per capita cost
- Improved provider experience

Successful V-BID creation requires a methodological approach to determine a service's value. At the same time it must address the nuances of services and population-specific needs and perspectives.¹¹ Failure to account for any of these factors could negatively impact an organization's overarching goal and vision for care.

To hedge this risk, V-BID design should include methods to drive both providers and patients toward value-based care. Implementing V-BID designs can prove challenging. That's why an effective V-BID strategy accounts for methods to achieve its objectives and solve common barriers to implementation.

9. NCCDPHP. [Issue brief: Understanding value-based insurance design](#). June 2015.

10. Ibid.

11. Ibid.

Barriers to V-BID implementation

Common barriers to V-BID implementation include:

- Regulatory concerns surrounding data privacy (NCCDPHP, 2015)
- Short-term cost and utilization increase without guarantees of long-term cost benefits (NCCDHP)
- Recruitment, identification and targeting of members (NCCDPHP; Eibner et al.)
- Lack of IT infrastructure, support and interoperability to identify and track beneficiaries (Eibner et al.)
- Lack of member awareness of V-BID opportunities and impact (Eibner et al.)
- Member dissatisfaction of perceived unequal treatment (NCCDPHP)
- Poor selection/alignment of targeted interventions and cost sharing (NCCDPHP)
- Lack of participation or engagement in case management and disease management activities (Eibner et al.)
- Federal or state marketing restrictions limiting model awareness (Eibner et al.)
- Lack of information on cost-sharing models within low-value care (Yeung, 2019)
- Value-based care arrangements that are considered part of V-BID design – like bundled payments and pay-for performance contracts – also complicate implementation

Conclusion



Navigating the complexity of V-BID can be overwhelming. V-BID designs need to:

- Maximize the positive impact of expenditures
- Restructure benefit from cost to clinical value
- Increase adherence to evidence-based services through cost-sharing strategies

Optum has access to one of the industry's largest health care data assets and many of the industry's top professionals. We're ready to help support your organization throughout its V-BID journey by:

- Helping you analyze and identify the targets for your V-BID program
- Outlining a pathway to support your members and providers to navigate your new model
- Serving as an extension of staff to tackle critical priorities

With many years of both consulting and industry experience, our team implements lasting change by drawing upon a unique breadth of financial, IT, operations, analytics and clinical capabilities. In the process, Optum helps identify and realize new opportunities to generate value throughout an organization. We're committed to developing forward-thinking business and clinical models that deliver cutting-edge results designed to meet your unique organizational needs.

Our experts



Aura Lee Canoy BSN, RN

Director, Advisory Services

aura_l_canoy@optum.com
1-763-330-3034



Jay Hazelrigs

Vice President, Advisory Services

jay.hazelrigs@optum.com
1-303-619-2442



Kelly Trucks-Hayes, RN, MSN

Manger, Advisory Services

kelly.trucks-hayes@optum.com
1-763-631-8438



Erik Johnson

Vice President, Advisory Services

erik.n.johnson@optum.com
1-202-905-7152



[optum.com](https://www.optum.com)

Optum is a registered trademark of Optum, Inc. in the U.S. and other jurisdictions. All other brand or product names are the property of their respective owners. Because we are continuously improving our products and services, Optum reserves the right to change specifications without prior notice. Optum is an equal opportunity employer.

© 2022 Optum, Inc. All rights reserved. WF6980891 05/22