

Value-Based Insurance Design

Kai Yeung, PharmD, PhD; Anirban Basu, PhD

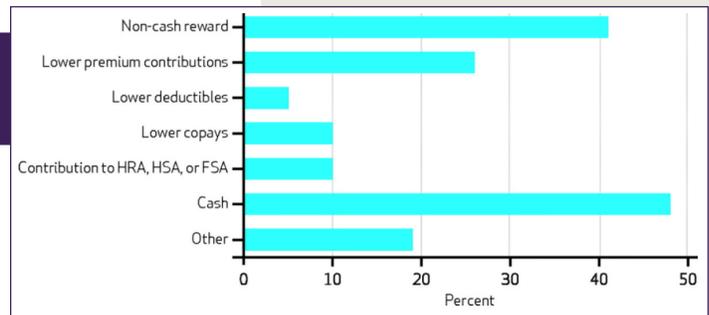
Interest in value-based insurance design (VBID)—aligning patient cost-sharing with the value of services—is high, because of its potential to improve health care quality and health outcomes without increasing costs. Evidence of these benefits, however, remains inconclusive as specific designs vary considerably, and follow-up studies have only shown short-term effects. Our knowledge about VBID, to date, shows: (1) strong evidence that VBID for pharmaceutical benefits can improve use of high value prescriptions; (2) weaker evidence that VBID can reduce spending; (3) pairing with disease management may improve VBID effectiveness; and (4) small effects of VBID on the use of preventive services and little to no effects on health outcomes, at least in the short-term (1-3 years).

Examples of VBID

Value-based cost-sharing comes in many forms (Figure 1). In 2010, two Oregon public employee benefit programs implemented value-based insurance designs for state workers.¹ The plans have higher copayments for overused or preference-sensitive services of relatively low value (e.g., some imaging services and sleep studies), and they cover preventive and high-value services (e.g., weight management programs,

Figure 1:
Types of Cost-Sharing Mechanisms in VBID

cardiac treatments, hysterectomy) at low or no cost-sharing. Between 2007 and 2010, CVS Caremark, which manages pharmacy benefits for 59 employer-sponsored health plans, also introduced VBID alongside disease management programs.²



Source: Choudhry et al. *Health Affairs* 2010

Evidence

Most evidence regarding the effects of VBID comes from plans that waived or reduced cost-sharing for maintenance medications used to treat chronic conditions such as hypertension, diabetes, and hyperlipidemia.³⁻⁵ They achieved modest (1.5%-9.4%) increases in medication adherence. The Affordable Care Act's removal of cost-sharing for preventive services, such as well-patient visits, screenings, and vaccinations, has had little to no effect on use of those services, to date. The effects on health outcomes and expenditures remains ambiguous.

Areas Where VBID Shows the Most Promise

- COST-SHARING INCREASES FOR LOW VALUE DRUGS AND COST-SHARING DECREASES FOR HIGH VALUE DRUGS
- COMBINING VBID WITH DISEASE MANAGEMENT PROGRAMS
- TARGETED COST-SHARING DECREASES (E.G., FREE MEDICATIONS FOR THOSE WITH A PRIOR HEART ATTACK)

The Center for the Study of Health in Public Policy (SHIPP) is an interdisciplinary research center that explores how all policy—not just healthcare policy—impacts the health of individuals and communities.

Director: Michelle Garrison, PhD

Pairing VBID with disease management programs may improve their benefits. In two studies that simultaneously implemented cost-sharing reductions for diabetes medications and a disease management program or a telephonic nurse consultation found adherence improved between 0.5 to 22.6% and expenditure dropped between \$0 to \$151 per diabetic patient per month.⁶

One (unpublished) study finds that increasing cost-sharing for low-value services – sleep studies, upper gastrointestinal endoscopies, advanced imaging services, and potentially overused surgeries – by more than \$100 per service reduces use of three of the four services by 6- 32%. Effects on plan expenditures and health outcomes were not reported.⁷

One employer-sponsored plan implemented a more comprehensive version of VBID that incorporates both increases in co-payments for low-value drugs and decreases in co-payments for high-value drugs. (Yeung, Basu, Hansen, Watkins, & Sullivan, 2017)⁸ Over a three-year period, the policy shifted use towards higher value medications and resulted in a 10% decrease in total (patient plus plan) expenditures, a net savings of \$1.1 million. The policy had no significant effects on health outcomes.

Current Federal Policy Initiatives

The Federal government's interest in VBID has grown in the past decade. The Affordable Care Act requires all health plans to include certain preventive services without patient cost-sharing and allows health insurance plans to use VBID approaches.⁹ Further, since January 2017, the Center for Medicare and Medicaid Innovation (CMMI) has been allowing Medicare Advantage plans in 7 states to pilot VBIDs for enrollees with at least 1 of 7 chronic conditions.¹⁰ CMMI will permit four approaches for these pilot programs: 1) reduced cost-sharing for high-value services, 2) reduced cost-sharing for high-value providers 3) reduced cost-sharing for enrollees participating in disease management or related programs, and 4) coverage of additional supplemental, high value benefits. In 2018, this pilot will be expanded to 3 additional states and 2 additional chronic conditions.^{10,11} Congress is considering expanding the pilot to all states.

Finally, the 2017 National Defense Authorization Act called for a pilot program to evaluate the feasibility of incorporating VBID into the TRICARE program, the Department of Defense Military Health System, by reducing cost-sharing for certain populations of covered beneficiaries.¹² The pilot is to begin by January 1, 2018.

References

1. Kapowich JM. Oregon's test of value-based insurance design in coverage for state workers. *Health affairs*. 2010;29(11):2028-2032.
2. Choudhry NK, Fischer MA, Avorn J, et al. At Pitney Bowes, value-based insurance design cut copayments and increased drug adherence. *Health affairs*. 2010;29(11):1995-2001.
3. Chernew ME, Juster IA, Shah M, et al. Evidence that value-based insurance can be effective. *Health affairs*. 2010;29(3):530-536.
4. Choudhry NK, Fischer MA, Avorn JL, et al. The impact of reducing cardiovascular medication copayments on health spending and resource utilization. *Journal of the American College of Cardiology*. 2012;60(18):1817-1824.
5. Maciejewski ML, Farley JF, Parker J, Wansink D. Copayment reductions generate greater medication adherence in targeted patients. *Health affairs*. 2010;29(11):2002-2008.
6. Kim YA, Loucks A, Yokoyama G, Lightwood J, Rascati K, Serxner SA. Evaluation of value-based insurance design with a large retail employer. *Am J Manag Care*. 2011;17(10):682-690.
7. 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*. 2016;NBER Working Paper No. 22875.
8. Yeung K, Basu A, Hansen RN, Watkins JB, Sullivan SD. Impact of a Value-based Formulary on Medication Utilization, Health Services Utilization, and Expenditures. *Med Care*. 2017;55(2):191-198.
9. United States Congress. Patient Protection and Affordable Care Act. 2010.
10. Hanley S. Announcement of Medicare Advantage Value-Based Insurance Design Model Test. 2015; <https://innovation.cms.gov/Files/reports/VBID-Announcement-REVISED-10-9-15.pdf>. Accessed December 20, 2016.
11. Staff of the Senate Finance Committee. The Creating High-Quality Results and Outcomes Necessary to Improve Chronic (CHRONIC) Care Act of 2016. 2016; <http://www.finance.senate.gov/imo/media/doc/Chronic%20Care%20Section%20By%20Section.pdf>. Accessed December 20, 2016.
12. United States Congress. National Defense Authorization Act for Fiscal Year 2017. 2016.