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Issue Brief: A Primer on Reference Pricing & Value-Based Insurance Design

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Cost sharing has a well-deserved reputation as a blunt tool to shape health care utilization. Unsurprisingly, higher out-of-pocket costs typically reduce health care use. But equally unsurprisingly, people rarely make health care decisions based on a careful evaluation of the most cutting edge, evidence-based data on cost effectiveness. Rather, when faced with higher cost sharing, people simply forego preventive care, delay seeing a doctor in hopes of improving on their own (a decision that sometimes leads to the emergency room), or skip or divide doses of prescribed medications. Even the experts often disagree on the cost-effectiveness of different services, and guidelines vary based on individual circumstances. Simply "shopping" for a cheaper provider of a needed service is undercut by opaque pricing models and out-of-date provider directories. In short, cost sharing is indeed a blunt tool to shape positive health care seeking behaviors.

Value-based insurance design (VBID) attempts to address some of these many flaws by applying evidence-based approaches to cost sharing. Basically, VBID makes known cost-efficient services cheaper (or free) for enrollees. For example, charging lower copays for generic drugs than pricier brand name equivalents is a classic VBID policy. The ACA's requirement that all health plans offer recommended preventive services without cost sharing also reflects a value-based approach, because these services reduce the incidence of high cost episodes down the road. Other, more controversial VBID strategies discourage use of less cost-efficient services by increasing out-of-pocket costs or limiting access to more expensive providers.

Most of the VBID literature to date has focused on experiments with employer-based insurance plans that lower or eliminate copays for highly cost-effective medications treating common chronic conditions like diabetes, high blood pressure, asthma, and high cholesterol. When taken regularly, these medications should improve health outcomes and thus reduce costs for hospitalizations and other expensive care episodes related to those conditions.[1] Numerous studies suggest that reducing copays increases adherence and improves outcomes, often without increasing overall costs.[2] That is,

[1] Michael Chernew et al., *Impact of Decreasing Copayments on Medication Adherence within a Disease Management Environment*, 27 HEALTH AFFAIRS 102 (2008); Niteesh Choudhry et al., *Full Coverage for Preventive Medications after Myocardial Infarction*, 365 NEW ENG. J. MED. 2088 (2011); Matthew L. Maciejewski et al., *Value-Based Insurance Design Program in North Carolina Increased Medication Adherence but Was Not Cost Neutral*, 33 HEALTH AFFAIRS 300 (2014).

[2] At least one study applying higher cost sharing for less cost-effective medications demonstrated cost-shifting onto patients without a reduction in overall health expenses. Joy L.

reductions in hospitalizations and emergency department visits offset most or all the added costs from increased medication use.

The converse "stick" approach to VBID – charging people more for using less effective services – has not yet been widely applied.[3] "Reference pricing" is one of the few "stick" strategies widely employed as a VBID cost-controlling mechanism. A reference price sets a maximum coverage amount for a given service. Typically the reference price matches or exceeds what a set of "preferred providers" charge for that service. As long as the person chooses a preferred provider, she would only be responsible for the standard copay or coinsurance for that service. But if she chooses to go to a network provider who does not accept the reference price, she would have to pay the copay plus whatever that provider charges above the reference price.

Evaluating Reference Pricing

Studies of reference pricing in employer-sponsored insurance plans in Norway and California suggest that the approach successfully reduced expenditures on services in two ways. First, more individuals chose lower-cost "preferred providers" for their procedures, reducing extra expenses paid to more expensive "outlier" providers. Second, many "non-preferred" providers reduced their charges to more closely match the reference price. In theory, reference pricing can put substantial market pressure on expensive outliers to bring their charges more in line with the norm, or else they stand to lose business. Separate studies on pharmaceuticals and imaging procedures have shown the price reductions to also reduce out-of-pocket expenses for enrollees.[4]

Reference Pricing Example

Susie needs a knee replacement surgery and her plan has a $25,000 reference price with 10% coinsurance.

Option 1: She selects a preferred provider. She will pay:

Up to $2,500 (less if provider charges under the $25,000 limit)

Option 2: She selects a non-preferred provider who charges $30,000 for knee replacement. She will pay:

$2,500 *plus* **$5,000** (the difference between the reference price and the provider's charge)

Unfortunately, a fixed reference price can create financial incentives for providers at both ends of the cost spectrum. Just as the

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Lee et al., *Value-Based Insurance Design: Quality Improvement but No Cost Savings*, 32 HEALTH AFFAIRS 1251 (2013).

[3] Kai Yeung et al., *Impact of a Value-based Formulary on Medication Utilization, Health Services Utilization, and Expenditures*, MED. CARE (2016), doi:10.1097/MLR.0000000000000630 (forthcoming).

[4] James C. Robinson et al., *Reference Pricing, Consumer Cost-Sharing, and Insurer Spending for Advanced Imaging Tests*, MED. CARE (2016), doi:10.1097/MLR.0000000000000605 (forthcoming); Kurt R. Brekke et al., *Reference Pricing, Competition, and Pharmaceutical Expenditures: Theory and Evidence from a Natural Experiment*, 95 J. PUBLIC ECONOMICS 624 (2011).

most expensive providers are encouraged to reduce their prices to match the reference price limit, the least costly providers have incentive to *increase* their costs toward that limit. In one recent reference pricing experiment done by CalPERS, a public employee pension plan in California, the preferred network included all providers whose costs fell below the 80th percentile of all providers.[5] At first, all providers reduced their prices, but after two years without altering the reference pricing limit, preferred providers increased their prices back to pre-implementation levels.[6] Some evidence shows that if a plan regularly updates the reference price to reflect changes in the overall market, the incentive for low-cost providers to charge more may be mitigated or even reversed.[7]

Potential Problems with Reference Pricing

The biggest concern surrounding reference pricing from a consumer's point of view is reduced access. This largely depends on the degree to which a plan circumscribes its "preferred" network by setting a lower reference price. The CalPERS experiment described above set the reference price at the 80th percentile (4 of 5 network providers would be "preferred"). That may not do much to hinder access, but another plan that set the reference price at the 50th or the 20th percentile, could seriously limit enrollee's ability to access the procedure without incurring serious out-of-pocket costs.

A second concern is that the powerful incentive on providers to reduce their costs to meet the reference price could lead them to cut corners that reduce the quality of the service. Most reference pricing experiments turn to quality metrics to mitigate this concern, such as limiting preferred provider status to those who can demonstrate similar quality outcomes along with their lower prices. Quality metrics, however, can be imperfect or incomplete measures of care quality.

Finally, for reference pricing to work, a plan must establish price transparency and a simple and effective method for enrollees to identify providers that accept the reference price. Robust education and awareness campaigns for both providers and enrollees, up-to-date provider directories indicating preferred providers, and publicly available quality metrics are all necessary components to help individuals find the right place to seek treatment. Without price transparency and provider comparison tools, reference pricing could easily lead to cost-shifting from plans to enrollees that dramatically increases out-of-pocket expenses. A recent brief from Consumers Union offers other important recommendations for both selecting appropriate services for reference pricing and adding protections to ensure that enrollees are not hurt by the practice.[8]

Scope of Value-Based Insurance Design (VBID) Going Forward

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[5] James Robinson & Timothy T. Brown, *Increases in Consumer Cost Sharing Redirect Patient Volumes and Reduce Hospital Prices for Orthopedic Surgery*, 32 HEALTH AFF. 1392 (2013).
[6] Timothy T. Brown & James C. Robinson, *Reference Pricing with Endogenous or Exogenous Payment Limits: Impacts on Insurer and Consumer Spending*, 25 HEALTH ECON. 740 (2016).
[7] Id.; Brekke et al. *supra* note 4.
[8] Geraldine Slevin and Julie Silas, Consumers Union, *Creating a Consumer-Friendly Reference Pricing Program* (Aug. 2014), http://consumersunion.org/research/creating-a-consumer-friendly-reference-pricing-program/.

VBID initiatives to date, especially “stick” approaches, have been mostly limited to employer sponsored insurance plans. Most comprise a handful of services that both clearly demonstrate improved health outcomes *and* generate enough offsets to actually save money, or at least remain cost neutral. Relatively few services and medications have an adequate evidence base to meet this dual standard.

VBID has generally not featured yet in Medicaid and Medicare, apart from lowering or eliminating cost sharing on some preventive services and charging higher copays for brand drugs. Medicare recently requested proposals for several Medicare Advantage VBID demonstrations, but only for “carrot” approaches (either reducing copays or adding benefits). CMS will test the approach with five-year pilot programs in ten states, beginning January 1, 2017.[9] These pilots, where CMS will approve plans with VBID designs, aim to improve health outcomes and provide data on the potential for VBID in public insurance.

In the meantime, as states, employers and health plans increasingly look to delivery system reform models to provide more efficient and effective health care, reference pricing will likely continue to proliferate and evolve as a cost reduction strategy in Medicaid managed care, Medicare Advantage, and in the employer-sponsored and individual insurance markets.

[9] Seven states will launch VBID plans in 2017: Arizona, Indiana, Iowa, Massachusetts, Oregon, Pennsylvania, and Tennessee. In 2018, the pilot will be expanded to Alabama, Michigan and Texas. CMS, *Medicare Advantage Value-Based Insurance Design Models* (Last visited Sept. 19, 2016), https://innovation.cms.gov/initiatives/vbid/.