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**Improving Value and Investing in Prevention:
Encouraging Value-Based Insurance Designs in State
Health Insurance Exchanges**

**A white paper prepared for the Executive Board of
Maryland's Health Benefit Exchange**

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Citizens' Health Initiative**

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1. Executive Summary

One of the main goals of the Affordable Care Act is to control the costs of US health care. Channeling patients towards more effective services and away from the least effective is one of many approaches being used to attempt to control costs while improving health outcomes. Modifying co-pays, even in small amounts, can send signals to patients about which services provide better value for the money. This paper reviews value-based insurance design (VBID) concepts and discusses options for states to encourage these designs in the new health insurance exchanges (HIEs).

Value-based insurance designs alter co-pay structures to promote high value medical services and treatments while discouraging the use of low-value services. VBID is most commonly applied to prescription drugs, through lowering co-pays for drugs associated with the maintenance of chronic conditions. It is also increasingly used to incentivize the use of preventive services. In practice, VBID has typically not been used to raise co-pays on low-value services. This paper discusses VBID applied to medical services and treatments. It does not focus on behavior changes such as weight loss or smoking cessation.

The evidence surrounding how well VBID designs work is growing, but it is still limited. The VBID interventions targeted at increasing use of effective medications have led to modest increases in appropriate use of drugs, but no cost savings have yet been documented. Additionally, to date there is no evidence that reducing or eliminating co-pays for preventive services cuts costs in the long term. However, modeling does suggest the potential for such long-term savings.

There have been few studies that have evaluated VBID interventions where co-pays have been raised to reduce use of low-value services. Arguably, this is where the most significant system savings could be achieved, but these types of programs are difficult to implement for many reasons. One challenge associated with blanket increases in co-pays for "low value" services is that often medical evidence suggests there is a limited sub-set of consumers for whom such medical interventions are appropriate. Designing VBID policies that allow selected sub-groups of patients to access low value treatments without increased cost sharing requires both clinical information (e.g., genetic testing) and advanced health IT that would support a real time linked VBID/clinical decision support process. This type of electronic decision support process does not yet exist in the current health plan and delivery system environments. However, given the potential for eliminating significant expenditures, such targeted VBID coverage decisions should be a priority for both payers and providers.

VBID has been slow to gain market acceptance for other reasons. Due to the extensive churning in the US market for health insurance, there can be limited financial incentive for insurers to implement designs that encourage preventative service when future savings may not accrue to them. There are also concerns that

altering co-pays can negatively impact low-income enrollees or be used as a way to restrict access to services. VBID, however, when done right, can encourage the use of effective services and can reduce the cost for enrollees on many services.

States under health reform are allowed to promote the use of VBID designs in the exchanges. A recent Institute of Medicine (IOM) report highlighted VBID as one method for determining what services should be included in the essential benefit package (IOM 2011).

There are four broad approaches a state HIEs could pursue with regard to VBID:

1. Establish a process for recommending high/low value services and require plans to adhere to the recommendations;
2. Require insurers to offer VBID plans of their own formulation;
3. Incentivize or encourage insurers to offer VBID plans; and
4. Offer no guidance to plans.

All of these options have advantages and disadvantages, but the leadership of each exchange has a unique opportunity to reshape the insurance benefit landscape in their state. While the evidence is still limited, some Maryland insurers are already experimenting with value-based designs. Their successes and challenges will be informative for the Maryland Health Benefit Exchange. Over time, it is possible that value based insurance design will become an important method for changing incentives within the health care system in an effort to control growth in health care costs. It is also hoped that VBID can improve the health of populations enrolled in US health plans, both within and outside the Exchange.

2. Introduction and Goals of this White Paper

Bending the cost curve in American health care is a key goal of the Affordable Care Act (ACA). Pressure on government budgets is increasing and with over 24 million new enrollees expected to join the exchanges by 2021, controlling costs will become ever more important (Elmendorf 2010). Channeling utilization towards more effective medical services and curbing the use of the least effective is one of the ways the ACA might affect costs. Today, most health insurance cost-sharing approaches, such as co-pays or deductibles, are usually applied equally to all types of services. In this manner, health insurance programs can have the unintended consequences of keeping people from getting care they need. For example, some consumers do not take their cholesterol medications or visit the physician for a flu shot because it costs too much out of pocket. On the other side of the equation, many health plans offer first-dollar comprehensive coverage for all services on equal basis. This offers few financial disincentives to the consumer and their provider to avoid costly interventions when cheaper alternatives are equally appropriate (Fendrick et al. 2001).

In recent years, some insurance companies and employers have moved towards restructuring cost-sharing arrangements for patients based on cost and proven effectiveness to achieve more value when there are multiple therapeutic choices to treat a condition. To the extent possible, the scientific evidence on what health care interventions work is used to guide these decisions. The ultimate goal is to provide incentives to encourage use of high value services and discourage the use of low-value services, otherwise known as “value-based insurance design” (VBID). Reducing co-pays can be used to promote the use of preventative and health-maintaining therapies, while raising co-pays can discourage the use of low-value services. Such approaches have the potential to lower health care costs though encouraging the use of the most effective services, but they must also be designed accounting for individual patient needs (Baicker and Goldman 2011). Other research has shown that reducing co-pays does not necessarily hold down

expenditures (Wallace et al. 2008). While there is a growing policy push to adopt VBID designs as a way to potentially save money, (Choudry 2010, Fendrick 2010, IOM 2011), there has been little attention to date regarding how state health insurance exchanges (HIEs) could or should be involved in promoting VBID.

VBID is one of several, often inter-related payment or delivery reforms that are all being developed to produce better care at a lower cost. On the consumer side these include wellness programs, disease management and financial incentives for healthy behaviors. On the provider side, interventions include alternative payment mechanisms such as pay for performance, shared risk arrangements, or new organizational structures such as primary care medical homes (PCMH) and Accountable Care Organizations (ACOs). Table 1 provides a brief overview of some of these reforms. Experiments in these areas are generally well under way in Maryland. In fact, the state legislature passed a bill last year requiring the five largest insurers in Maryland to participate in a PCMH demonstration program targeted to all Marylanders (MHCC 2011).

Table 1: Payment and Delivery System Reforms Targeted at Increased Effectiveness

Reform Model	Description	Targets of Intervention / Impact / Evidence	Source/Ref.
Accountable Care Organization (ACO)	-Partnerships between physicians and hospitals -Puts them at risk for cost overruns	-Targets providers -Reduce duplication -Providers incentivized to keep costs down and increase quality -Increase coordination	HHS 2011
Patient Centered (Primary Care) Medical Homes (PCMH)	-Improving coordination of care for patient with emphasis on several factors: patient-centered, comprehensive, improved access and better health information technology to improve quality	-Targets providers -Not clear there are savings -Incentives for providers to participate -Could reduce duplication	AHRQ 2011, MHCC 2011
Pay-for-Performance (P4P)	-Payers set targets and reward physicians for meeting them, usually in the realm of quality or outcomes	-Targets providers -Improves outcomes -Not clear there are savings	AHRQ 2011
Disease Management (DM)	-More intensive level of service targeting patients with one or more serious chronic conditions	-Targets patients -Improves patients' management of the disease -Not clear there are savings	Kongstvedt 2007
Behavioral Incentives	-Designed to curb unhealthy behavior such as obesity, addiction and increasing use of preventative services	-Targets patients -Reduce costs of downstream care	Volpp et al. 2011
Value Based Insurance Design (VBID)	-Push utilization towards high-value services and away from low-value services	-Targets Patients -Invest in preventative care to lower downstream costs	Fendrick et al. 2010.

As the Health Benefit Exchange in the State of Maryland charts its course to develop a health insurance marketplace, the goal of this paper is to examine the various strategies through which the HIE could encourage value-based insurance design. The intent is not to promote VBID as the only or primary approach for improving the affordability and value of health care services, but rather to consider whether and how it might be applied here in Maryland. Many analysts and advocates have raised reasonable concerns about the efficacy and fairness of increasing the exposure of consumers to the financial consequences of their health care decisions, be it through VBID or more blunt cost-sharing mechanisms. If we are to expand health coverage to the uninsured and maintain coverage of the currently insured in these challenging economic times, we believe it is essential that policy makers understand all available cost-containment design options, including a careful assessment of the advantages and drawbacks.

With this goal in mind, the specific objectives of this paper are to:

1. Define and describe value-based insurance designs;
2. Discuss the type and results of VBID approaches that have been tried to date;
3. Provide examples of possible ways VBID saves money and improves quality;
and
4. Examine the options for Maryland and other state health insurance exchanges to promote or allow VBID approaches within their ACA-supported program.

This paper is organized as follows: in the next section we will define value-based insurance design. Then we will examine what designs have been proposed, but not implemented in section 4. In section 5 we will discuss whether VBID can control costs and the challenges with implementation in sections 6 and 7. Section 8 will discuss what can be done under the ACA and section 9 will examine what are possible strategies available to the state exchanges.

3. What is value-based insurance design?

Value-based designs alter incentives for patients to curtail or encourage use of specific types of medical services. They are rooted in the health economics literature, which has shown consumers to be consistently responsive to the level of cost sharing for medical services. The best-known study of the impact of cost sharing on utilization is the RAND Health Insurance Experiment. Participants in the RAND study were randomized to a variety of insurance plans with benefit designs providing varying levels of cost sharing. Although this federally funded study occurred several decades ago, its original intent was to provide input into the design of benefit levels for a national health program such as the ACA. Results showed that higher cost sharing was associated with reduced use of health care services, but that patients were just as likely to reduce the use of necessary as well as unnecessary services. Of most concern, the study showed that certain subgroups of low income individuals had significantly worse health outcomes as a result of being assigned to plans with higher co-pays (Manning 1987).

The notion of varying cost-sharing in proportion to the value of individual services was in part a response to the recognition that fixed levels of cost-sharing led to potentially harmful reductions in use of medical services. By reducing the co-pay for preventative and essential health services, these designs are intended to reduce the financial barriers to medically beneficial services. This could avoid the negative impacts of the cost-sharing strategies applied in the RAND health insurance experiment, particularly for low-income individuals. At the same time, higher cost sharing could be attached to services that provide little or no additional clinical benefit.

The hope is that this higher level of cost sharing would not negatively impact health outcomes, while achieving substantial decreases in spending through reductions in utilization. Importantly, the additional cost burden to patients in VBID designs can be very modest. The objective is not to create an insurmountable financial burden

for patients, but to use cost to guide consumer decisions. Relatively small increases in out-of-pocket costs can signal interventions for which the health benefits are known to be extremely small, unknown, or non-existent compared to available alternatives. For example, a patient might be asked to pay an additional \$25 if they choose to select a drug to treat an eye disorder for which the health plan pays nearly \$2,000 more than an alternative drug that provides exactly the same clinical benefit (see details on this example below).

4. Experience to date with VBID

As a method of controlling costs in drug spending, employers, health plans and drug benefit managers have long used the tiered formulary approach to steer consumers away from expensive brand-name drugs to their cheaper, generic or trade-named counterparts. While prescription drugs account for only about 10 percent of US health care spending in 2008 (KFF 2011), they are a growing driver of costs (CBO 2008). The formularies charge low co-pays for generics, and progressively higher co-pays for preferred brand name and non-preferred brand name drugs. Fendrick et al. (2001) argue that tiered drug formularies are not value-based designs, because initially, the cost-sharing was based on price rather than clinical outcomes. Analyses have shown that these programs have led consumers to base their purchasing decisions on price, not effectiveness, so it is important that the payer set up these formularies to reflect both price and effectiveness (Goldman et al. 2007).

The true 'value-based' designs that combine cost and effectiveness have mostly been centered on prescription drugs, and these have usually sought to target specific patient groups to increase the efficiency of the design (Chernew et al. 2007). A large Blue Cross Blue Shield plan offers an example of VBID applied to medications. The insurer eliminated co-pays for generic drugs and lowered co-pays for other drugs in eight classes of medications for chronic diseases. Research showed adherence rates improved by 2 to 4 percent in the first year of the program (Maciejewski et al. 2010), but there was no evidence that the program saved money.

Table 2: Summary of Selected VBID Related Evaluation / Pilot Studies and Their Results

Setting	VBID Features	Targeted Population	Study Design	Results	Study Authors (Year)
Pitney Bowes (Employer)	Diabetes, hypertension and asthma drugs dropped to lowest co-pay tier in formulary	Employees with diabetes	Interrupted time series with control group	26% reduction in ED visits, slower rate of growth compared to similar companies	Choudry et al. (2010)
Large Unnamed Employer	Eliminated co-pays on generic drugs and halved co-payments for brand name drugs in five classes of drugs: ACE inhibitors, ARBs, diabetes meds, statins and inhaled corticosteroids.	Disease management program participants in a treatment and control firm	Difference-in-difference with control groups of other firms	7-14% decrease in non-adherence	Chernew et al. (2008)
BCBS North Carolina (Health Plan)	Eliminated generic drug co-pays and reduced brand name co-pays for eight therapeutic classes	Four conditions: diabetes, hypertension, hyperlipidemia and congestive heart failure.	Pre-post quasi experimental, difference-and-difference with propensity score matching as sensitivity analysis.	Adherence improved when analysis controlled for patient covariates. Percent change in the medication possession ratio ranged from 1.46 to 3.80.	Maciejewski et al. (2010)

4.1 What VBID Plans Are Not

Value-based designs are meant to focus specifically on signaling the relative value of services. However, VBID discussions in the literature sometimes group together the changes in cost sharing for specific services with other forms of incentive programs

that intend to promote behavioral change more generally. Both types of benefit designs use financial incentives to influence patient decisions, but the behavioral change incentives for weight loss or smoking cessation do not usually focus on individual types or classes of medical services. Rather, they are designed to address individual health decisions: “The current norm within group-based insurance plans of charging people who engage in high-risk behavior the same premiums as those who engage in unhealthy behavior implicitly encourages unhealthy behavior (Volpp et al 2009).”

The Affordable Care Act did give employers and insurers more leeway to expand the use of behavioral incentives. Under the bill, employers and insurers can provide as much as 30 percent of the premium to consumers as incentives, up from 20 percent currently (§ 2705). The bill also allows Medicaid programs to experiment with behavioral incentive programs (§ 4108). We cite these issues here to distinguish the traditional definition of VBID from the behavioral incentives. In order to provide a consistent definition for this report, we consider value-based designs to be limited to those health plans that offer differing levels of cost-sharing for high and low values services and treatments. While potentially of interest, incentives for behavior change and incentives for obtaining care from certain providers are excluded from further discussion in this document.

4.2 VBID and the Maryland Context

CareFirst, Maryland’s BlueCross BlueShield affiliate, has the largest market share in the state’s insurance market. The company is already experimenting with partial VBID designs, focusing on reduced co-pays for preventive services and interventions for reducing complications from chronic disease. CareFirst began offering an incentive program this year (CareFirst 2011a) that combines traditional VBID (dropping co-pays on three cancer screenings and flu shots) with behavioral incentives to reduce weight and to control cholesterol and blood pressure. Five health standards will qualify the employee for a reduction in plan premiums: non-

smoking status (yes), blood pressure (under 120/80 mm Hg), influenza immunization (yes), cholesterol levels (under 200 mg/dL) and body mass index (BMI) measures (under 25). Additionally, breast, cervical and colon cancer screenings, as appropriate, as well as an annual flu shot will also count towards the reward. Employees will qualify for portions of the reward based on how many of the health benchmarks they successfully reach (CareFirst, 2011b).

The Maryland Health Care Commission (MHCC) has explored the issue of encouraging value-based insurance design for the small group health insurance market. A recent report detailed the difficulties in requiring small business to formulate VBID plans, but concluded that it could be reasonable for health insurers to design and offer these plans in Maryland (Wicks et al. 2009).

4.3 Versions that have been proposed but not widely implemented

Some of the largest VBID linked savings are likely to come from reducing the use of low-value services. However, there is little experience to date with VBID plans that require patients to pay more out of pocket for services that may provide little or no clinical benefit. Neumann and colleagues (2010) review issues associated with increasing co-pays for “low-valued” services. These plans are much more controversial, in part because of the added financial burden on patients and in part because it is technically challenging to determine with high confidence which services are low value. In some cases, the same service could be of little clinical benefit to a specific subgroup of patients, but higher value for patients with different clinical or demographic characteristics. However since then, many formulary programs now consider clinical outcomes in setting their co-pay levels. In the future as individualized medicine becomes a reality, the formularies could be specific to the patient’s genetic make-up. This, however, will require electronic health records and better data management in order to make these VBID strategies realistic (Wilkie and Dolan 2011). This means that for some services, insurers may

need sufficiently detailed information to determine what level of co-pay would be appropriate for individual patients.

The analytic approach to determining “value” is also a subject of considerable debate. Neumann et al. recommend quantitative estimates of cost-effectiveness as one tool for determining value. This type of analysis remains controversial in the US, despite relatively wide use and increasingly advanced methods globally. Recent federal investments in comparative effectiveness research are intended to generate more evidence on clinical effectiveness but there continues to be extensive debate about whether this work should include analysis of costs, cost-effectiveness or value (Helfand et al. 2011).

Identifying low-value services could begin with information already on hand. For example, Fendrick et al. (2010) note that those services given a “D” recommendation from the US Preventative Services Task Force (USPSTF) could be deemed low-value and provided at higher cost sharing. Tufts University maintains an extensive database of published articles that evaluate the cost-effectiveness of health care interventions that could be used to identify potential services for a VBID intervention.

Oregon has implemented a system to prioritize certain services based on their clinical effectiveness and value (OHA, 2010). Services are ranked from highest value to lowest. Those services and treatments in the lowest value tier have the highest co-pays, while those services on the higher tiers, have decreasing levels of cost sharing (for further information, see Box 1 below). These co-pays applied across the whole range of services, not just pharmacy. While only some of Oregon’s Medicaid population is subject to these co-pays, this benefit structure led to a 2.2 percent drop in utilization of pharmacy and a 13.5 percent increase in outpatient services (Wallace et al. 2008).

Oregon uses its prioritization process to make recommendations to the commercial market about what services should be offered at no cost to the patient. Oregon's process has advantages over others in the US such as Blue Cross Blue Shield's Health Technology Evaluation Center (BCBS 2011), because the process is open and transparent. Having a public process is a key recommendation for those interested in pursuing these value-based strategies (O'Donnell et al. 2009).

VBID programs that apply high cost sharing to low value services are likely to be much less politically popular than those that reduce out of pocket costs for high priority services, making a transparent decision process even more important. Refusing to pursue politically tough options has its consequences. Denny et al. (2011) note that without ways of decreasing costs for services with little or limited benefit, everyone will be affected as health care becomes unaffordable, particularly for public sector programs. They note that rising premiums not only make coverage unaffordable for those with employer-sponsored coverage, but also crowd out other services such as education for the government payers. Furthermore, most proposed mechanisms to reduce medical spending involve some type of incentive to reduce utilization: the main difference between approaches is whether the incentives are targeted towards patients, providers, or third party payers.

One final design that is not widely implemented is the use of incentive payments to patients or "negative" co-pays. Insurers or employers pay enrollees cash or credits towards their expected share of the costs for receipt of the most-valued services. Payments to receive flu shots would be one example. These incentives may not work if there are other barriers preventing people from taking advantage of the incentive. For example, finding transportation to get to the doctor could be difficult. The time costs associated with going to the doctor or the discomfort associated with the services could also make people less inclined to get them.

5. Can VBID Control Costs?

The central idea of value-based insurance design is to get better health outcomes for less money through modest financial incentives. Most of the experiments in VBID have focused on encouraging the use of preventive services in the hopes that these will increase health and decrease costs sometime in the future. The goal of primary prevention (such as most immunizations) attempts to avoid disease, while secondary prevention (chronic care management) attempts to keep disease from progressing to more serious advanced stages. However, the number of studies looking at cost reduction in VBID is limited.

Most other research involving expected cost reductions with VBID are projections. Many drugs work equally well to treat the same condition, but can cost different amounts. A *New York Times* editorial highlighted this issue over drugs to treat macular degeneration earlier this year (NYT 2011). Avastin and Lucentis are two drugs used for macular degeneration that a recent study found were equivalent (Martin et al. 2011). Lucentis is approved to treat this condition while Avastin is a cancer drug being used off-label to treat the eye disease. Avastin is about \$50 per dose compared with \$2,000 per dose for Lucentis (WSJ 2011). The potential for cost savings with VBID is huge. A subsequent Inspector General's report estimates that Medicare Part B would have saved \$1.1 billion if patients used Avastin instead of Lucentis (OIG 2011). Patients would have saved \$275 million in co-payments. As noted above, VBID designs might require only a fraction of the incremental cost to be passed along to patients, with the goal of counteracting the common but often incorrect assumption that newer and more expensive options are necessarily better choices. Even if cost-sharing differed, it is unclear how many patients would actually select Avastin over Lucentis, since this drug is a physician administered injection. It is also important to note that presently prescribing Avastin for macular degeneration is an "off-label" use, and while that may change in the future, this adds another layer of complexity to any VBID intervention related to this clinical area.

VBID designs can be applied to more than drugs. Perlroth et al. (2010) analyzed the literature relating to the treatment of localized prostate cancer. The three main treatments for prostate cancer vary greatly in their average costs. A radical prostatectomy costs \$7,300, brachytherapy¹ costs \$19,000 and radiation therapy costs \$46,000. The authors found no evidence in their review that brachytherapy and radiation resulted in better outcomes. A simple VBID policy would be to modestly increase the cost sharing for these services to encourage more use of the cheapest and equally effective prostatectomy. The authors estimate \$1.7 to 3 billion could be saved directing patients toward the lower cost treatments. Newer forms of radiation treatment can cost close to \$100,000 per case, and have not been shown to have any clinical advantages over any of these less expensive options, including watchful waiting. In this situation, there are no compelling arguments that patients will be harmed by requiring some additional out of pocket spending for these extremely expensive alternatives that provide no additional clinical benefit.

6. Concerns with VBID Initiatives

There is concern that value-based insurance design plans could hurt low-income beneficiaries. Across the board increases in cost sharing have been shown to adversely affect access use of beneficial services in low-income individuals, most convincingly in the RAND Health Insurance Experiment (Manning 1987). Focusing VBID on reducing cost sharing for necessary preventative and maintenance services for chronic conditions is one way to mitigate this concern. It has been shown that reducing cost sharing increases the use of prescriptions drugs (Chernew et al. 2008) although there is no evidence yet that it reduces expensive long-term complications. As noted above, increases in cost-sharing for selected services can be reserved for those high cost interventions that have not been shown to provide any clinical benefit over existing alternatives.

¹ Brachytherapy entails inserting radioactive 'sources' using a catheter directly into the prostate to deliver radiation directly to the tumor thereby reducing the damage to surrounding tissue.

The ultimate impact of VBID designs on health plan premiums has not yet been clearly determined, in part because there is so little experience to date with plans that include high cost sharing for ineffective or low value services. The initial attempts to implement VBID structures have involved offering free screenings or dropping co-pays on certain medications. Depending on the details, these might actually cost more in the short term and there is not enough long-term evidence to demonstrate that they significantly reduce downstream health costs. Modeling the clinical and economic impact of these plans does suggest the potential for substantial savings. The empirical evidence is much more limited on plans that apply high co-pays, though modeling suggests the potential for substantial savings (Perlroth 2010). While VBID plans could easily be constructed as actuarially equivalent to plans with traditional cost-sharing designs, they could also be structured with the goal of reducing premiums. It would be relatively straightforward to identify a set of clinically equivalent services with very different costs and associate the services with varying co-pays. From here, researchers can begin to develop some empirical evidence on how clinical decision-making is influenced.

7. What is preventing insurers from adopting these plans already?

For value-based insurance design, evidence as to the magnitude and sustainability of any effects is still uncertain. Choudhry et al. (2011) highlight additional challenges that have prevented insurers from widely adopting these designs. The main challenge is a lack of evidence of what works, and difficulty in determining which services are high or low value. This is followed closely by concern over the effective targeting of incentives to the right populations. For example, dropping the co-pay on all hypertension drugs means the insurer will expend more money on the patients who were already adherent, just to gain improved outcomes for the sub-set who are not. Patient education about the designs has also been mentioned as necessary to maximize the benefits of the plans (DoL, OHP Comment, 2011).

Health plans may lack incentives to invest in these preventive or behavior changing programs if the enrollees are churning on and off the plans (Herring 2010). Providers may also object if investing in better preventive care or care coordination means extra expense for them, when the insurance company might be accruing the cost savings from better managed chronic conditions or from keeping the conditions from happening in the first place.

One last concern is a fear of service rationing. This could quickly escalate into “death panel”-type language if a governing body such as the exchange starts making recommendations for specific cost sharing for specific services. These concerns might be alleviated if it is made clear that individuals will still have access to low-value services, just at a slightly higher cost.

Despite the low uptake so far, Choudhry et al. (2010) finds that many employers are thinking of implementing some version of the designs, either of the behavioral change type, or the reduced co-pays on medical treatments/services, or both. The authors used a survey of 1,300 large employers to find out what types of incentives are currently in use. They found that while less than 20 percent of employers are currently using some type of incentive, over 81 percent plan to in the near future. In addition to prescription drug co-pays, others offer cash incentives, non-cash rewards, premium discounts and even payments into health savings accounts to promote wellness initiatives such as weight loss or participation in disease management programs.

8. What Can States Do Under the ACA?

While the evidence for VBID is still being developed, the ACA did provide policy levers to allow states to experiment with promoting these designs.

The law mentions VBID for patients in health insurance plans (both in and out of HIEs) in several places. There are also a variety of value-based payment mechanisms for hospitals, physicians and long-term care, but those are beyond the

scope of this review. Table 3 summarizes the ACA's VBID-related provisions for patients.

TABLE 3: VBID IN THE ACA LEGISLATION

Section	Description
§ 1331	States are allowed to set up basic health plans for those above the Medicaid eligibility level and are allowed to use value-based designs in the basic health plan.
§ 2713	This section requires several services to be offered with no cost-sharing: the USPSTF A and B recommendations, the CDC's immunizations recommendations and Health Resources Services Administration's women and children's screenings and regular check-up care. Also of note is that the bill allows HHS to develop guidelines for VBID: "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 preliminary HIE regulations promulgated from the Department of Health and Human Services (HHS) on July 11, 2011, do not offer much guidance for states on implementing any value-based designs. More guidance is expected as several government and other bodies continue to weigh in on the development of regulations implementing the bill. For example, the Federal Department of Labor issued a separate request for information on value-based insurance design, so additional guidance for state health exchanges may be forthcoming (DoL 2011).

Additionally, VBID designs are likely to be part of the essential health benefit package (EHB). The EHB will be the basic set of services included in the silver tier plan within the exchanges. The so called "metallic" tiers correspond with the actuarial value of the plans, that is, the proportion of the enrollee's health care costs the plan expects to pay: bronze (60%), silver (70%), gold (80%) and platinum

(90%). The Institute of Medicine (IOM) committee was charged with providing guidance for HHS on setting a framework for the EHB. The IOM identified several methodologies used to determine benefit packages, one of which is value-based designs (IOM p74). HHS is expected to issue rules on the essential health benefit package next year.

The state of Maryland went a step further with the establishing legislation for the state exchanges, passed in 2011. The bill requires the exchange board study how to promote value-based insurance designs as a requirement under selective contracting (Maryland Health Benefit Exchange Act 2011).

9. What role should the exchanges play?

Little work in the policy arena has been done on what state roles should be in encouraging VBID plans. The Robert Wood Johnson Foundation published a brief on the possible roles state exchanges could play (Rosenbaum 2011). Rosenbaum (2011) views the VBIDs as part of a state's possible role in active purchasing. In selecting plans for participation an HIE could give special priority to high performing plans or require that plans be using these strategies. The University of Michigan's VBID Center offered three pieces of limited guidance. The authors argue that states allow flexibility for insurers in designing the plans, that states should not set proscriptive cost sharing levels for everyone, and that VBID could be part of quality measures for plans (VBID Center 2011).

States have a spectrum of possible actions they can take in terms of encouraging insurers to offer value-based designs. At one extreme, the states could establish mechanisms to identify high and low value services, and require that health plan include an option with a benefit design that applies different cost sharing to the services in these different categories. The other extreme is to do nothing, and let insurers continue experimenting in the marketplace with various approaches. A

number of options are available between these two extremes, and are discussed in more detail in the sub-sections below.

9.1 Alternative 1 - Require Plans to Structure Co-pays According to a State-defined High and Low Value Services

The benefit of this approach is that it would provide some consistency in the services considered high and low value across VBID plans, and would prevent the structuring of co-pays in ways that might lead to risk selection. However, this is a politically tough option, because there are substantial technical and analytic challenges to identifying both high and low-valued services, as noted earlier. The US Department of Labor recently held an open comment period on VBID, and many patient groups, disease-specific advocacy organizations and even local health departments voiced concerns that VBID would be used as a way to limit access to medically necessary services. A recent example would be the controversy over mammograms. The USPSTF recommended routine screening delaying regular screening until after age 50, due to the high rate of false positives (USPSTF 2009). Even health professionals did not agree on the conclusions, such as when the Mayo Clinic decided to ignore the recommendations for less frequent screening (Mayo 2009). Increasing the co-pay for women under 50 would be a form of value-based design, but obviously one subject to much criticism.

While politically controversial, there is some precedence for state-level procedures for prioritizing services based on value. For its public health insurance programs, including Medicaid, Oregon compiles a detailed list of services it deems of high value, and covers as many as the services as possible with the funding allotted in a given year (Box 1). The Oregon Health Plan ranks “medical services in a way that represents the comparative benefits (*i.e.*, clinical effectiveness and cost-effectiveness) of each service to the entire population to be served, (OHP, 2011).”

Oregon's eleven-member Health Services Commission has an established process for selecting covered services starting by ranking clinical areas from highest to

lowest importance. Treatments are assigned to the categories (HSC, 2009). These treatment categories are then combined with a series of population impact measures, effectiveness, the need for the service, and the net cost for an overall score.

Box 1: Oregon Health Plan's Coverage Prioritization Process

1. Ordering of clinical areas	<ol style="list-style-type: none"> 1. Maternity/Newborn 2. Primary/Secondary Prevention 3. Chronic Disease Management 4. Reproductive Services 5. Comfort Care 6. Fatal conditions-Disease modification/Cure 7. Nonfatal conditions-Disease mod/cure 8. Self-limited Conditions 9. Inconsequential Care
2. Application of Impact Measures How the service/treatment impact the following domains:	<ol style="list-style-type: none"> 1. Impact on health life years 2. Impact on suffering 3. Population effects 4. Vulnerability of population affected 5. Effectiveness 6. Need for service 7. Net cost
3. Scoring	Each of the clinical areas and the impact measures have point values. Treatments for all diseases are scored and ordered in 'lines' from highest to lowest.
4. Coverage	Oregon's legislature covers as many services as possible with the given level of funding in a year.
5. Application of VBID principles	Some enrollees face cost sharing in OHP. The state uses the prioritization process to determine the services of high value. Little/no cost-sharing on: Value-based, basic diagnostics, comfort care.
6. Co-pays based on VBID tiers	The prioritized list is sorted into four tiers according to the lines, with cost-sharing progressing up the tiers.

* Adapted from Oregon Health Authority presentation on VBID, 2011.

The board of directors for Oregon's Health Plan began setting coverage priorities in 1993 (OHP website, 2011). Starting from a list of prioritized clinical areas (Box 1), the state includes treatments and services according to several criteria such as effectiveness or impact on population health (OHP, 2011). This could be one model for State HIEs. Using Oregon as a model, Maryland could follow this example and

set up a commission tasked with defining what services are of high or low value, and requiring insurers to adhere to the cost sharing recommendations. However, Oregon has had a long history of developing this process, which might be difficult to replicate elsewhere in a short period of time.

9.2 Alternative 2 - Require Insurers to Design their own VBID Plans

Another approach to promoting the availability of VBID plans would be for the Maryland Exchange to require the participating plans to offer their own value-based designs. In the Department of Labor's open comment period on value-based designs, the Blue Cross Blue Shield Association (BCBSA) commented that because the field is still emerging, insurers need the flexibility to innovate. BCBSA also said that the rules and regulations should distinguish between value-based and other similar designs that alter patient cost-sharing based on other criteria, such as requiring higher patient co-pays for services delivered by out of network providers, or "tiered" provider groups based on quality/efficiency performance profiles (DOL, 2011). Researchers at the University of Michigan's Center for Value-Based Insurance Design also argue in favor of flexibility, arguing that mandating too many benefits could limit insurer's ability to offer plans in the lower-cost tiers, the bronze and silver metal plans in the Exchanges (VBID Center, 2011).

Another issue is the implementation of the essential benefit packages (EHB) in the exchanges. The EHB will set the minimum "floor" for which services must be provided in qualified plans offered through the exchange. It is not clear whether insurers will be able to modify the benefit packages within actuarial limits to compete against each other. The essential benefit package is important because the subsidies for individuals in the exchanges will be tied to that floor. States mandating benefits over what the essential packages include will be required to pay the full cost of subsidizing the extra services. It is also not clear what aspects of value-based design will be allowed other than the previously mentioned exemptions from cost-sharing (Bergthold 2010).

9.3 Alternative 3 - Incentivize/Encourage Insurers to Offer VBID Plans

Incentivizing insurers could promote the adoption of VBID plans without dealing with the negative political consequences of mandating them. Lischko (2011) recommends this approach in a white paper for the Massachusetts' exchange. Incentives could be provided through several channels. For example, the plans could be rewarded for offering VBID by giving those plans extra weight in a request for proposal process. Maryland's legislation enacting the exchange board highlights that value-based insurance designs could be used as one criterion for plans to be selected into the exchanges, if the board decided to take a more restrictive approach to the exchange marketplace.

States could encourage insurers to offer VBID plans in the exchanges. The closest existing example for this approach would be Oregon's VBID recommendations. Oregon has two separate pieces to its VBID process (See Box 1). There is the formal priority setting that makes the list of covered services and establishes the varying levels of co-pays for all of the public plans under the state's control, mentioned above. It then created a separate list from this process, which comprises recommended high value services for the commercial market. For the commercial market, it is just that, a recommended list and commercial plans are not required to adhere to the recommendations: "It is expected that the [value based service] concept could have a more significant impact in the commercial health insurance market, where these services could explicitly be offered without the considerable co-pays or coinsurance often required now (OHP 2011)."

Oregon uses the following guidelines to designate the high value services (quoted directly from HRS, Value-Based Services, 2011):

1. Ambulatory services (i.e. outpatient), and include medications, diagnostic tests, procedures, and some office visits;
2. Primarily offered in the medical home;

3. Primarily focused on chronic illness management, preventive care, and/or maternity care;
4. Of clear benefit, strongly supported by evidence;
5. Cost-effective;
6. Reduce hospitalizations or Emergency Department visits, reduce future exacerbations or illness progression, or improve quality of life;
7. Low cost up front;
8. High utilization desired; and
9. Low risk of inappropriate utilization.

Oregon offers the list only as encouragement to commercial insurers, providing an example for other states. However, Oregon's list is the culmination of a process that has been ongoing for over a decade, so it may require some time for a similar approach to be adopted in others states without this history.

9.4 Alternative 4 - Offer No Guidance to the Plans

The exchange could remain silent on the issue of VBID designs, which would let insurers decide for themselves what types, if any, they offered. This approach would presumably result in limited near-term adoption of VBID plans, unless the level of interest in this model increased substantially at the national level. However, many plans are likely to expand the number of preventive services or essential treatments for chronic conditions that are associated with little or no cost-sharing. As noted above, Maryland's biggest insurer, CareFirst, is already experimenting with VBID in the form of its *HealthyBlue* plan.

10. Conclusions

The US healthcare system is currently the most expensive and least equitable in the developed world. Value based insurance design is part of the broader movement of payment and delivery system reforms intended to improve the value, effectiveness and efficiency of our health care system. As we embark on the biggest national health insurance expansion in five decades, states have a unique opportunity to consider and potentially implement VBID within the health insurance exchanges.

States have several policy options to encourage these designs, ranging from establishing a list of specific services to allowing insurers to decide for themselves whether to adopt VBID.

As is the case with many of the new health care interventions being considered in the US healthcare system today, the overall evidence showing VBID will save money is still weak. States must take this into account when deciding whether or how strong of VBID designs for plans in the HIEs. However, it is likely that VBID can begin to improve the quality of care through directing consumers to more valuable services. Investing in prevention while diverting resources away from unnecessary services will be key in promoting health. In the long run, value based insurance design in conjunction with other payment reforms, might begin to wrench the elusive "bend" out of the health care cost growth curve.

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