Undermining Value-Based Purchasing — Lessons from the Pharmaceutical Industry Leemore S. Dafny, Ph.D., Christopher J. Ody, Ph.D., and Matthew A. Schmitt, Ph.D.

In 2015, the U.S. Department of Health and Human Services (HHS) announced a goal of linking at least 50% of Medicare spending to value-based payment models such as accountable care organizations. Health care providers and other stakeholders are now scrambling to reorganize in a way that delivers value while preserving or enhancing commercial success. Although it's not yet clear how providers will respond to value-based payment models, an examination of pharmaceutical industry practices can provide insights into problems that may arise — and practices to avoid.

Value-based plan design — a term that describes payers' efforts to align consumer cost sharing with the value generated by a service or drug — may sound like a new development in health care, but it's old news for prescription drugs. For years, insurers and pharmacy benefit managers have steered consumers toward generic and other high-value drugs by categorizing drugs into "tiers" and requiring lower copayments for preferred drugs. By 2000, roughly three quarters of enrollees in employer-sponsored health plans had plans with two or more drug tiers. Today, a similar proportion have plans with at least three tiers. Tiering not only encourages consumers to use high-value drugs, it also gives insurers leverage during price negotiations with manufacturers.

Under tiering, insurers offer manufacturers favorable tier placement in exchange for better discounts. Placement on a "preferred-brand tier," with a typical copayment of about \$30, will yield higher sales than placement on a "nonpreferred-brand tier," with a typical copayment of more than \$50. Insurers can also negotiate lower prices for drugs that have therapeutic

substitutes or questionable benefits by threatening to exclude them from their formularies entirely. In combination with the recent spate of patent expirations, this system has led to relatively low growth in drug spending.

In recent years, drug manufacturers have counterattacked by offering "copayment coupons." These coupons or discount cards — distributed by physicians' offices, through the mail, and online — enable the manufacturer to pay some or all of a consumer's copayment for a prescription. By severing the link between cost sharing and the value generated by a drug, copayment coupons can undo the beneficial effects of tiering. With such coupons, consumers' cost sharing may actually be lower for higher-tier brand-name drugs than for lower-tier therapeutic substitutes or generic bioequivalents. Since insurers typically cover about 80% of the total price of a prescription, however, the combined amount that the insurer and the consumer spend for higher-tier drugs remains substantially greater. If coupons shift spending toward these higher-priced drugs, the net effect will be higher pharmaceutical spending and, ultimately, higher health insurance premiums.

Not only do copayment coupons have the potential to pull consumers away from high-value drugs, they also greatly reduce the incentive for drug manufacturers to offer price concessions in exchange for preferred tier placement. In fact, the opposite strategy becomes profitable: charge insurers the highest price possible while remaining on the formulary, and then use a copayment coupon to promote utilization. The only recourse insurers have is to exclude a drug from their formulary entirely, and that may be much worse for patients than placing it in a high tier. If a drug is excluded, some patients will lack both coverage and a negotiated discount for a drug that might be a particularly good match for them.

In recent years, the number of copayment coupons being offered has skyrocketed. We estimate that in 2007, a quarter of noninjectable, brand-name drug revenue derived from drugs with copayment coupons; by 2010, that proportion had more than doubled. Coupons have since become rampant and now even appear in mainstream magazines. We recently examined how these coupons affect spending for drugs that are facing new competition from a generic bioequivalent. We estimate that they increase the percentage of prescriptions filled with brand-name formulations by more than 60%. Back-of-the-envelope calculations suggest that, on average, each copayment coupon increased national spending by \$30 million to \$120 million over the 5-year period following generic entry. In our sample, consisting of 85 drugs facing generic competition for the first time between 2007 and 2010, we estimate that spending on the 23 drugs with coupons was\$700 million to \$2.7 billionhigher than it would have been were the coupons not issued or banned.

The analogy between value-based purchasing in pharmaceuticals and the new frontier of alternative payment models for health care providers is relatively straightforward. Insurers are increasingly demanding steep discounts from suppliers (i.e., providers) in exchange for inclusion in more limited networks or placement on favorable tiers. They will drive hard bargains in locations where alternative suppliers are available and will use financial incentives for patients in order to deliver volume to suppliers who meet their criteria. In turn, suppliers may attempt to circumvent the copayment system by waiving cost sharing for patients, a direct analogue to copayment coupons. For example, some providers have found it profitable to charge prices that keep them out of an insurance plan's network and then waive cost sharing.³ Extending antikickback laws that are in place for government insurance programs would bolster the efficacy of selective networks for commercially insured patients.

The pharmaceutical-industry example also suggests other potential provider responses to value-based insurance designs. First, providers may lobby for laws and regulations that thwart insurers' efforts to limit networks, much as the pharmaceutical industry has lobbied to ensure that Medicare Part D plans include all drugs in six "protected classes," notwithstanding the Medicare Payment Advisory Commission's recommendation that the number of protected classes be reduced to four. In fact, we are already seeing such efforts by the hospital industry. In 2013, Seattle Children's Hospital sued the state's insurance commissioner after being excluded from the networks of many plans offered on the new insurance exchange, and the American Hospital Association's advocacy agenda includes "robust network adequacy" as an objective. Though it is imperative to provide consumers with accurate, accessible information on networks so they can make informed choices, stringent network-adequacy restrictions risk undermining the substantial benefits that selective contracting can yield.

Second, providers may promote their brands more aggressively; there could be a surge in provider advertising akin to the explosion in direct-to-consumer drug advertising, on which companies spent nearly \$5 billion in 2014. Advertising by health care providers was once taboo, but this convention is breaking down. Though it's unlikely that such advertising will reach pharmaceutical-industry levels — since provider profit margins are thinner and the operating units over which the fixed costs of ads would be spread tend to be smaller — providers may well amplify their promotion efforts to ensure that they remain in-network at favorable prices and with favorable cost sharing.

Third, providers may differentiate themselves through better outcomes and patient experiences so that they become "must-haves" -- like breakthrough pharmaceutical compounds. Of these possible responses, this option is the most meaningful source of value creation and is

precisely what value-based payment aims to encourage. For example, when confronted with complaints of escalating costs associated with care for back pain and threats of network exclusion, Seattle's Virginia Mason Medical Center developed a Spine Clinic offering evidence-based care and same-day appointments. Screening questions are used to distinguish the 15% of patients with serious issues from the 85% with uncomplicated pain. For the latter group, Virginia Mason has eliminated unnecessary imaging, specialist visits, and prescriptions and improved access to and effectiveness of physical therapy regimens. Costs have plunged, and patient satisfaction has surged.⁵

Unlike pharmaceutical compounds, however, novel approaches to care delivery probably won't be patentable and could be easier for competitors to replicate. Spurring such innovations will require collaboration among employers, payers, and providers, as well as public and private investments.

As the health care sector continues its slow but inexorable march toward value-based payments and insurance design, we must anticipate countermoves. By taking tough stances on efforts to subvert the value-based system, we can unleash innovation and release resources to reward it.

Dislcosure forms provided by the authors are available at NEJM.org.

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