Published in final edited form as:

JAMA. 2012 October 24; 308(16): 1635–1636. doi:10.1001/jama.2012.13616.

Choosing Wisely: low value services, utilization, and patient cost sharing

Kevin G. Volpp, M.D., Ph.D.^{1,2,3,4,5}, George Loewenstein, Ph.D.^{2,6}, and David Asch, M.D., M.B.A.^{1,2,3,4,5}

¹Center for Health Equity Research & Promotion, Philadelphia Veterans Affairs Medical Center

²Leonard Davis Institute Center for Health Incentives and Behavioral Economics

³Department of Medicine, University of Pennsylvania School of Medicine

⁴Department of Health Care Management, the Wharton School, University of Pennsylvania

⁵Penn Medicine Center for Innovation

⁶Carnegie Mellon University

The June 2012 issue of *Consumer Reports* includes a cover story entitled “5 medical tests you don't need.” The story reflects a joint “Choosing Wisely¹ initiative by *Consumer Reports* and the American Board of Internal Medicine working with specialty societies aimed at “encouraging physicians, patients and other health care stakeholders to think and talk about medical tests and procedures that may be unnecessary, and [that] in some instances can cause harm.”² Reducing such services would improve patient safety and quality while simultaneously preserving resources that could be used in better ways to improve health.

The framing of this initiative as a way to improve quality and patient safety is important. For too long, efforts to reduce the use of low value services have been decried by critics as rationing or as schemes to enhance insurance company profits. The rationing frame has often been motivated by political posturing or stakeholder financial interests and has helped perpetuate the consequences of unchecked health spending on both people's paychecks and federal and state budgets. The steady growth in health care spending at a rate greater than the growth of the economy would be less concerning if it provided corresponding value, but the *Consumer Reports* story reveals to the general public something many in the profession already know: While much health care spending does provide great individual and social value, some of it supports care of little or no value. Spending must be directed to services that provide the most value.

One initiative that has received recent attention in employee benefit circles is value based insurance design (VBID). The basic concept is simple: patient cost sharing should be based on the benefit of the treatment in question and not just the cost. If copayments are increased for low value services and reduced for high value services, then standard economics would

We do not think any of these are true conflicts but are erring on the side of full disclosure.

predict that patients would migrate away from low value services and toward high value services. Considerable evidence indicates that utilization declines when patient cost sharing is increased. In a large number of observational studies, patients who faced increases in their drug copayments were found to decrease their use of drugs. What caught policy makers' attention were studies that showed that while pharmacy costs decreased, these savings were offset by higher rates of emergency department utilization and hospitalization so no money was saved overall. Worse still, in this and similar studies, rates of adverse events, including deaths, increased.³

These findings suggested that reducing copayments could have the same effect in reverse: increasing adherence and reducing emergency department utilization and hospitalization—in short, better outcomes without any increase in cost.⁴ The appeal of this logic promoted efforts to reduce copayments for statins and other high-value medications in high-risk populations such as patients with heart disease or diabetes.⁵

A few years later, however, a series of evaluations revealed that increasing and decreasing copayments do not have mirror-image effects. While raising copayments decreases use, lowering copayments does not increase use nearly as much—an asymmetry that was not predictable from standard economic theory. Multiple observational studies have indicated that, while lowering copayments for medications improves adherence, these improvements are modest. Typically, adherence as measured by medication possession ratios (MPR) increased by about 1 to 4 percentage points on a baseline MPR of 60–80%.⁶ This means that for every patient who was completely non-adherent (MPR=0%) who became fully adherent (MPR 80%) there would be 20–25 employees who would now receive copayment reductions but whose adherence did not change. More recently, a study in which patients were randomly assigned post-MI to either standard copayments or zero copayments for statins, beta blockers, and ace-inhibitors found that MPRs in the year post-AMI were a disturbingly low 39% in the control group and improved to only 45% in the zero copayment group, a difference that resulted in no significant reduction in the rate of total major vascular events or health care spending.⁷

There are several reasons for this asymmetry between the large effect of increasing copayments and the small effect of lowering them. First, people tend to be loss averse, and, as a result, copayment increases are far more potent than copayment decreases. Second, copayment reductions every 30 or 90 days may be too infrequent to motivate a behavior – medication taking – that is supposed to occur at least daily. Third, copayment increases and decreases target different populations. Increases target those already taking their medications but decreases are meant to attract those who are not taking medications. Non-adherers will not, if they continue to not take their medication, notice any change in prices they are not paying.

These results may imply that, while VBD may not be a highly effective tool to increase usage of desired services, it could be an effective tool to decrease usage of low value services. Higher patient cost sharing would likely deter patient demand for certain types of low value services: patients would be less likely to demand their physician order an MRI for new onset back pain or less likely to demand antibiotics for upper respiratory infections. If

health plans went so far as to not cover PSA screening at all (now rated “D” by the US Preventive Services Task Force) so that patients had to cover the full costs, such decisions coupled with communications describing that such services either harm patients on average or provide extremely small benefits relative to the costs would send a powerful signal to patients who in many cases may assume that all health care services provided are high value.

However, there are at least two reasons increased patient cost sharing is only a partial solution to this problem. First, while patient-centered care is important, many patients need guidance in deciding whether services are or are not worth it. Indeed, it is noteworthy that many items in the full list of 45 low value services identified in the Choosing Wisely campaign have clinical qualifications. For example, items proposed include “Don't order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhinosinusitis.” However, few patients are able to judge whether those qualifications apply to them – e.g., whether their specific case of acute rhinosinusitis is complicated or uncomplicated. Inevitably, such judgments must be made by physicians. To increase prices for low value services across the board may both deter low value usage and usage by some patients for whom a given service may be at least of moderate value. Differentiating among such patients requires the judgment of a physician, which means that simple pricing schemes in isolation are not possible. Moreover, patients tend to respect the advice of their physician. If a physician recommends an MRI for a patient who has new-onset lower back pain but no motor deficits (another example listed on the Choosing Wisely list), many patients who can afford the price of an MRI (and probably many who cannot) will assume they should undergo the test regardless of the price.

Second, even physicians often have little understanding of what procedures are low value (a situation the Choosing Wisely campaign aims to correct), and some may have conflicts of interest that contribute to higher rates of utilization. The 45 services on the Choosing Wisely list are all tests ordered by physicians, often at high frequency, so the difficulty of changing these practice patterns is large. Social welfare is enhanced by the use of high value services, but individual physician income is enhanced by the use of high margin services, and there is no necessary connection between value and margin. To connect them, the underlying financial incentives for clinicians to provide more – whether services are low or high value or anything in between – also need to be addressed.

The value of the Choosing Wisely campaign is its reflection of the growing consensus of medical professional societies and consumer groups that many of the services physicians provide are in fact low value--and thereby provide little or no benefit for most patients. But if it is difficult in many situations for patients to choose wisely, and if there are significant challenges in getting physicians to choose wisely, then who should be doing the choosing?

The difficulties of achieving reductions in overutilization by affecting decisions by individual patients or physicians points to the pressing need to revisit the bogeyman of health care rationing. The development of guidelines that include the assessment of cost and value are urgently needed but CMS, AHRQ, and PCORI are all prohibited from the development of such recommendations.⁸ The United Kingdom's National Institute for Health and Clinical Excellence (NICE) is charged with weighing costs and benefits in

coverage decisions in recognition of the fact that not all services are worth their cost. The fact that professional societies have banded together to identify low value services associated with their own specialties is a sign of progress that overwhelming costs are finally bringing some reality and rationality to the debate. Inevitably, there will continue to be criticisms of specific approaches because of personal interests, or criticisms of general approaches because of political interests. In the end, however, reducing low value services is what will allow continued support for generous coverage of high value services. Choosing Wisely is an enormous step in the right direction. The next step will be to test different strategies for reducing utilization of these low value services, ideally through a combination of benefit design, physician payment policies, and social and professional guidance informed by clinical evidence.

Acknowledgments

Funding from National Institutes of Aging Penn CMU Roybal P30 Center on Behavioral Economics and Health

Asch and Volpp are consultants to VALhealth. Volpp and Loewenstein do consulting for CVS-Caremark and receive research funding from CVS Caremark and Humana. Volpp and Asch also receive research funding from Horizon BCBS. Volpp also has received research funding from Discovery (South Africa) and McKinsey.

REFERENCES

1. Cassel CK, Guest JA. Choosing wisely: helping physicians and patients make smart decisions about their care. *JAMA : the journal of the American Medical Association*. May 2; 2012 307(17):1801–1802. [PubMed: 22492759]
2. Choosingwisely.org. An initiative of the ABIM Foundation. [Accessed July 30, 2012]
3. Hsu J, Price M, Huang J, et al. Unintended consequences of caps on Medicare drug benefits. *N Engl J Med*. Jun 1; 2006 354(22):2349–2359. [PubMed: 16738271]
4. Fendrick AM, Chernew ME. Value-based insurance design: a “clinically sensitive” approach to preserve quality of care and contain costs. *The American journal of managed care*. Jan; 2006 12(1): 18–20. [PubMed: 16402884]
5. Pauly MV, Held PJ. Benign moral hazard and the cost-effectiveness analysis of insurance coverage. *J Health Econ*. 1990; 9(4):447–461. [PubMed: 10170706]
6. Choudhry NK, Fischer MA, Avorn J, et al. At Pitney Bowes, value-based insurance design cut copayments and increased drug adherence. *Health affairs (Project Hope)*. Nov; 2010 29(11):1995–2001. [PubMed: 21041738]
7. Choudhry NK, Avorn J, Glynn RJ, et al. Full coverage for preventive medications after myocardial infarction. *N Engl J Med*. Dec 1; 2011 365(22):2088–2097. [PubMed: 22080794]
8. Selby JV, Beal AC, Frank L. The Patient-Centered Outcomes Research Institute (PCORI) national priorities for research and initial research agenda. *JAMA : the journal of the American Medical Association*. Apr 18; 2012 307(15):1583–1584. [PubMed: 22511682]