

Value for Money in Health and Medical Care Services

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... WHAT IS VALUE? ...

Consumers determine value for any product or service by choosing after weighing benefits and costs of each alternative. An effectively operating economic market is required that, most of all, gives consumers sufficient understandable information to make rational choices. Unfortunately, there is no effective market in healthcare that corrects disequilibrium of supply/demand/price.

Market failure is due mainly to the inability of consumers/patients (and often physicians and payers) to determine benefits of services being recommended or received. Information asymmetry between provider and patient, lack of useful information, and an inability to separate good from bad information are the main reasons, with effects of someone else paying the bill adding to confused responsibility and perverse incentives. The other side of the equation, cost (or actual expenditures), is easier to define, eg, as the amount paid by patient or insurer.

We do a good job of determining value in choosing most goods and services. We also do a good job obtaining value when choosing a health insurance plan to fit individual and family needs.¹ However, we do a poor job obtaining value when choosing medical services. The Internet is touted as the latest vehicle to help consumers/patients overcome information insufficiency, but relying on it may not be the boon expected to help make better decisions.² How can people make sense of more information when they are unable to evaluate effectively information of poor quality, low understandability, and unknown usefulness?³ Growing use of and third-party payment for alternative and complementary medicine are further examples in which actual and expected health benefits may not match.⁴

Buying medical care is not like buying other goods or services. If you want to buy a stereo, you can obtain objective criteria in a buyer's guide. In

the store, you can inspect various systems to decide which has the best features in your price range, allowing you to maximize the value you receive for money spent. Imagine your frustration if you could not compare various models. What if you had no guarantee the stereo was actually going to work? This is precisely the scenario most people face when seeking healthcare. Patients and their physicians are often confronted with therapies whose costs are known but benefits are unknown. Patients have no way of ensuring they are getting the greatest benefit for their money, or if they are getting any benefit at all.

... SCIENTIFIC EVIDENCE AS A MARKET SUBSTITUTE ...

In the absence of an effective economic market, we rely on scientific evidence from controlled investigation to define benefit. This system has worked well for pharmaceuticals, which are required by law to prove safety and efficacy prior to marketing. Similar requirements, however, do not exist in any other medical care area, eg, surgery. Physician and patient belief about treatment effectiveness is enough to warrant use. For example, 2 decades of autologous bone marrow transplant use for metastatic breast cancer were based on anecdotal evidence, a few case series, and a decision analysis.⁵ A recent randomized control trial found the transplant procedure to be no better than conventional chemotherapy alone.⁶ The money spent on this treatment, as on any ineffective care, could not then be used for care of known benefit, such as colon cancer screening or vaccinating elderly populations against influenza.

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If most commentators are correct when noting that 85% of all health services, except prescription pharmaceuticals but including complementary and alternative interventions, have never been tested or tested correctly, then we cannot establish value for these services. This may mean that upwards of \$1 trillion of the \$1.3 trillion spent last year was of unknown benefit.

... COUNTERFACTUAL BEHAVIOR ...

Even results from the best randomized control trials are no guarantee of use in making appropriate clinical or payment decisions. There is a large body of literature on misadventure, malpractice, and misuse of medical services that clearly shows simultaneous overuse of care of little or no benefit and underuse of care of known high benefit. For years the emphasis was almost entirely on overuse of services. The work on geographic variation of services begun over 3 decades ago by Wennberg and colleagues is an example.⁷ Examples of overuse range from coronary angiography to upper gastrointestinal endoscopy.⁸ Now a growing corpus of studies shows underuse of interventions proven efficacious, eg, percutaneous transluminal coronary angioplasty, preventing adverse outcomes of asthma, thrombolysis following stroke and myocardial infarction, and breast cancer treatment for women.⁹⁻¹³

... CHANGING BEHAVIOR ...

Medical plus economic responsibilities are placed on physicians because they make nearly all the important decisions that marshal resources for care. The central question raised by misuse of medical services is, "How can physician, payer, and patient behavior be changed so appropriate practice and payment can lead to desired health outcomes within constrained resources?"

Let's consider the easy ones first, patient, physician, and payer behaviors. Over the past 15 years, managed care organizations have applied financial incentives to encourage more judicious use of medical services. While somewhat successful with physicians, financial incentives have had less success to date with consumers. Insurers need to explore other applications of incentives. For example, pay physicians on a sliding scale with highest payment for care of proven benefit and lowest payment for care of unknown, little, or no benefit.¹⁴ Patient copayments for pharmaceuticals also could be tied to expected benefit. For example, people with 4 risk

factors for coronary artery disease would pay nothing for their statins, whereas a person with no risk factors would pay the full prescription cost.

Another option would be to pay patients directly if they took their medications and then had fewer than expected disease-related services. Assume a person with moderate-to-severe asthma is expected to have 6 unscheduled visits to the physician, 5 emergency room visits, and 1 hospitalization per year. For every such outcome avoided by taking medications and practicing self-care, the patient could be paid, eg, \$5 for every physician visit avoided, \$50 for an emergency room visit avoided, and \$200 for avoiding hospitalization, in addition to no medication copayment. Of course, the prerequisite is that effective systems of patient health education, reinforcement and follow-up, and incentives to patients and providers must be in place. There remains the potential ethical and medical dilemma often voiced by physicians: pressure from payers to use less care than needed. Each of these options should be tested prior to implementation to determine unexpected consequences and prevent undue medical and financial hardship on patients and families during the experiment.

The knottier problem is significantly changing physician behavior beyond simply using money to reduce service use. At present, we rely on standard continuing medical education to keep physicians' knowledge current. This process has failed. However, other means, tested by randomized and other control methods, show clearly what is effective—self-learning, group learning and reinforcement, peer acceptance, and professional and financial incentives.¹⁵ Here, too, we need new systems of organization to implement such continuing education programs. Knowledge of the latest data on effectiveness and efficacy of new and existing techniques and medications, combined with financial incentives, may result in the desired changes in physician behavior.

... EXPENDITURES AND VALUE ...

In most aspects of our daily life, we usually expect to pay more for better quality. In healthcare, we expect new and better care to cost less or lead to lower expenditures. For example, who realistically expects to pay less for a new car than a previous model? In 1961 I purchased my first new car, a technological tour de force for its time; I spent \$2300. In 1995, I bought my most recent car for \$23,000. The

inflation-adjusted price of the first car is now about \$12,000, half what I paid for my most recent one. My current car always starts and needs engine tune-ups only every 100,000 miles. The first car needed an oil change every 1000 miles, new tires and engine tune-up every 20,000 miles, valve and piston ring reconstruction every 40,000 miles, and was erratic about starting in New England winters. I would never buy the first car again given what is now available at twice the real price, because I am getting more than twice the value for the second vehicle as I would get for the first. I think most people would agree not to accept 1961 medical care, even at 1961 prices, instead of that available in 2001. Is it any wonder that substantial medical expenditure inflation continues with only infrequent moderation?

What then can help us improve value for money in health services? First, no matter how we choose to solve the problem of unknown value for medical services, we must be prepared to invest more to produce information useful to and usable by decision makers—patients, physicians, and payers—so that health and monetary returns will be far greater than they are today.¹⁶ Second, we must also recognize clearly that improved health outcomes will be achieved in part by better medical interventions that will cost more than current ones. Next, we must implement the changes in organization, financing, and delivery recommended by the recent Institute of Medicine studies.^{17,18} Finally, we have to give up the fantasy that costs or expenditures will decline; new and better technology, an aging population, and other factors will continue to determine the size of future expenditure increases.¹⁹

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