



## Comparing Physicians on Efficiency

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Over the past decade, public reporting on health care performance has become increasingly common. But whereas most reporting has concentrated on the quality of care in health maintenance

organizations, hospitals, or large medical practices, health care purchasers are now focusing on identifying which individual physicians deliver good care most efficiently. The appropriate way to measure physicians' efficiency — and the proper uses for such measurements — is a matter of disagreement between those who pay for health care and those who provide it.

Knowledge about physicians' efficiency could be helpful to patients who increasingly struggle to afford premiums, deductibles, and coinsurance. It could also motivate physicians to lead urgently needed efforts to improve efficiency. Average health care spending for a family of four in the United States now exceeds the entire annual earnings of a mini-

mum-wage worker. Such concerns about affordability among workers and their employers have led numerous health plans to assign physicians to "tiers" on the basis of efficiency and quality measures, arousing the ire of some physicians.

What are the controversies surrounding the use of physician-efficiency assessments by consumers and purchasers? Can reasonable compromises be struck between physicians and these two kinds of "customers"? A shared understanding of differing perspectives on six key issues (see table) may speed convergence on a middle ground.

First, who decides when measures of efficiency are adequate for customer use — customers or service providers? Physicians argue that available measures of effi-

ciency are insufficiently refined, whereas consumers and purchasers find the consequences of waiting for perfected measures intolerable. Key methodologic questions include how best to handle high-cost cases, how many cases a physician should have managed before efficiency can be meaningfully analyzed, and how to attribute payer spending to a particular physician. There are no "gold standard" approaches to these questions, and decisions that maximize fairness to physicians often compromise usefulness to customers. For example, higher minimum-sample-size requirements mean that fewer physicians can be assessed.

Most consumers expect that their representatives (for example, Consumers Union or Zagat) should select performance measures, which service providers should be invited to comment on but not to veto. Physicians counter that measuring health care performance is extraordinarily complex, that uni-

Core Issues Related to the Use of Physician-Efficiency Measures by Health Care Consumers and Purchasers.		
Issue	Customer Perspective	Physician Perspective
<b>Who decides?</b> Do customers or providers determine the minimum validity of efficiency measures before external use?	Customers	Providers
<b>Comprehensive or narrow measures?</b> Should comprehensive efficiency measures or narrow (or condition-specific) efficiency measures be used?	Comprehensive and narrow measures	Narrow measures only
<b>Individual or group measurement?</b> Should customers have access to both physician-group and individual-physician measurements or physician-group measurements only?	Physician-group and individual-physician measurements	Physician-group measurements only; individual-physician measurements should be used for internal efficiency-improvement efforts only
<b>Does price matter?</b> Should efficiency measures be based on real or standardized prices?	Real prices, so efficiency measures reflect real costs to customers	Standardized prices, so efficiency measures reflect only physicians' use patterns, not prices of the facilities and consultants they use
<b>How much quality information?</b> What quality information is needed when a physician's efficiency is being measured?	Efficiency measures should be "quality-balanced" (reasonable quality measurements must be available, but lack of quality measurements for any specific area should not preclude the use of efficiency measures)	Efficiency measures should be "quality-matched" (customers should not use efficiency measurements for a given aspect of care until quality measurements for that aspect are available)
<b>What type of data?</b> Should initial efficiency measures be based on electronic data (including billing data) or on clinical data from paper medical records?	Electronic data	Electronic data and clinical data collected from paper medical records at customers' expense

versally available health care billing data cannot capture that complexity, and that the public cannot understand the resulting measurements. Although physicians acknowledge that some physician-efficiency measurements are accurate enough to inform internal efficiency-improvement efforts, they are wary of the use of such data by outsiders. Their reasons include skepticism about severity-of-illness adjustments, concern about the adequacy of sample sizes in analyses focused on individual physicians, and fear of other potential sources of unjustified damage to doctors' reputations.

A second struggle is over "comprehensive" versus narrow efficiency measures. Comprehensive measures produce a single summary score that reflects spending

for all services provided to all patients whose care a physician has substantially influenced. The average amount the payer and patient spent, per episode of treatment for an acute or intermittent illness and per year for ongoing treatment of a chronic illness, is compared with figures for other physicians in the same specialty and geographic region, after adjustment for the mix of treatments and severity of illness. The other approach is to analyze data on a narrowly defined measure (e.g., the percentage of prescriptions written that are for generic drugs) or on a single question related to one condition (e.g., the frequency of radiologic testing for low back pain). Hybrid approaches are also in use (e.g., the average total spending per episode of low back pain).

Patients might prefer a summary score because when they select a physician, they can't predict the conditions for which they'll need treatment. Purchasers, too, might seek a summary score to inform decisions about including physicians in their insurance network or assigning them to a co-insurance "tier." Many physicians, in contrast, view a summary score as an uninterpretable oversimplification of a complex reality: a physician might be efficient in treating one health problem but inefficient in treating another.

A third question is whether efficiency scores should be calculated for individual physicians or only for groups of physicians. From a customer's perspective, measures for individual physicians are important, since patients tend to

choose doctors rather than groups, and individual physicians' efficiency often varies widely within groups. Furthermore, social science research on the diffusion of responsibility shows that performance is best when the behavior of group members is individually identifiable. But physicians argue that providing and improving care are "team sports," that an individual physician's effect on spending is difficult to define, and that measurement of individual performance may result in sample sizes that are too small.

Fourth, comparisons of physicians' efficiency can focus solely on differences in the uses of visits, tests, and treatments or they can also reflect price differences. For example, a physician at a teaching hospital might use fewer radiologic tests than community-based colleagues with similar patients, but higher radiology prices at the teaching hospital could more than offset the lower rate of use.

Consumers and purchasers favor using actual prices, so that efficiency ratings account for both use and price and encourage physicians to use lower-priced referral options if quality can be preserved. Many physicians, however, believe they should not be held accountable for actual prices, because referral decisions are often based on patients' convenience or the delivery system with which a physician is affiliated — which may charge higher prices because of the cost of delivering public benefits such as medical education, research, and uncompensated care.

A fifth point of contention is that in many areas of health care, no good quality measures exist, and in others, measurements are not readily available because of ongoing reliance on paper medical

records. For areas lacking quality scores, should efficiency scores be reported? Consumers and purchasers argue that if a reasonable set of quality scores is available, they shouldn't have to wait until it's possible to match an efficiency

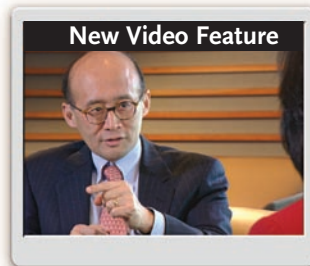
fee levels. Physicians, by contrast, regard billing data as insufficient for publicly reported measurements and argue that either they should be compensated for supplemental data collection from paper records or performance measurement should be delayed until electronic records are widely adopted.

With health care growing increasingly unaffordable and physicians continuing to make spending decisions for their patients, the use of physician-efficiency comparisons has become inevitable. How can physicians and customers find common ground?

First, it would be more productive if, rather than debating whether the available physician-efficiency measures are good or bad, customers and physicians collaborated in developing additional avenues for improving efficiency. For example, groups of physicians could be permitted to limit customer use of individual physician-efficiency measurements if the groups agreed to variable payment linked to robust targets for improving efficiency and quality. In addition, payers should disclose measurement methods and collaborate with physicians to refine them.

Second, when appropriate measures of quality are not available, physicians could be given a reasonable opportunity to fill the gap before condition-specific and specialty-specific efficiency scores begin to be used. Rather than insisting on delaying measurement of efficiency until interoperable electronic medical records become ubiquitous, physicians should support creative alternatives, such as adding laboratory results to laboratory bills.

Third, efficiency analyses should recognize the societal good of missions such as caring for disad-



Dr. Lee discusses the goals, stumbling blocks, and applications of quality and efficiency measurement in a video interview available at [www.nejm.org](http://www.nejm.org).

score with a quality score for every condition. Physicians worry that being held accountable for efficiency when treating conditions for which no quality measurements are available may encourage frugality when quality trade-offs are unknown.

Finally, payers have, out of necessity, used billing data to score physicians on quality and efficiency. Although measurement would be more accurate if additional clinical data were collected from medical records, reviewing paper records is costly, and clinical data won't be widely available from electronic health records anytime soon. Customers feel that until all physicians adopt electronic records or agree to supplement billing data with clinical data free of charge, the use of billing data is the only practical path — and one that is preferable to remaining in the dark or continuing to judge efficiency solely on the basis of physicians'

vantaged populations and teaching, which would necessitate using both real and standardized prices to calculate efficiency scores. If such analyses demonstrated efficient use of resources, then negotiations could focus on the appropriate way to adjust scores on the basis of real prices for the cost of fulfilling such missions efficiently.

And finally, investment in cost-effectiveness research and the science of physician-efficiency measurement should be increased.

All stakeholders want U.S. health care to be about much more than money. For this vision to be realized, physicians and customers will need to collaborate in measuring efficiency and inspiring physi-

cians' pursuit of lower-cost paths to the best clinical outcomes.

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