Final Contract Report

Consumer Financial Incentives: A Decision Guide for Purchasers

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Foreword: Exploring the Role of Consumer Financial Incentives

The Agency for Healthcare Research and Quality (AHRQ) commissioned a multidisciplinary group of experts to develop *Consumer Financial Incentives: A Guide for Purchasers.* It is a tool for employers, health plans, and State Medicaid agencies considering or poised to design and implement a consumer financial incentive strategy. The Guide was created in partnership with a panel of purchasers and consumer representatives. The panel was asked to identify questions that need to be addressed when considering or designing a consumer financial incentive strategy; these questions were used to form an outline for the Guide. Responses summarize empirical evidence, when it exists, and incorporate real life case examples to illustrate a breadth of implementation options.

Interest in consumer financial incentives seems to be increasing, particularly as a strategy to influence the selection of high-value providers. One means of encouraging consumers to consider value when selecting a provider is through the development of tiered networks, which sort providers on some combination of quality and price measures and reward consumers' selection of those of high value (for example, by offering a lower copayment). Although tiering represents a small segment of the market, the use of tiering strategies by employers is growing.[1]

A recent in-depth scan supported by the Robert Woods Johnson Foundation examined the extent of efforts to engage consumers in health care quality issues (along with six other indicators of market readiness for quality improvement) across 14 U.S. communities. Eleven of the 14 communities were rated as "limited" on consumer engagement, which was the lowest rating. Minneapolis/St. Paul scored the highest, due to its experience in providing comparative plan and clinic-level performance to the public through Web sites and provider directories and its 10-year-old tiered physician network product, which provides quality and cost ratings to consumers.[2]

This Guide is intended as a tool for exploring if and how consumer financial incentives might be tapped to improve community or market readiness for quality improvement. Incentives can be applied to a range of consumer decisions that purchasers may seek to influence in the pursuit of a high-value agenda:

- Selecting a high-value provider.
- Selecting a high-value health plan.
- Deciding among treatment options.

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[1] Baker L, Bundorf K, Royalty A, et al. Consumer-Oriented Strategies for Improving Health Benefit Design: An Overview. Technical Review 15 (Prepared by the Stanford University–UCSF Evidence-based Practice Center, Stanford CA, under Contract No. 290-02-0017). AHRQ Publication No. 07-0067. Rockville, MD: Agency for Healthcare Research and Quality; July 2007. Available at http://www.ahrq.gov/downloads/pub/evidence/pdf/consumer/consorient.pdf. Accessed on October 11. 2007.

[2] Powers PE, Painter MW. A Checkup on Health Care Markets. Princeton, NJ: Robert Wood Johnson Foundation; April 2007. Available at http://www.rwjf.org/pr/product.jsp?id=18651&topicid=1053&gsa=pt1053. Accessed on October 11. 2007.

- Reducing health risks by seeking preventive care.
- Reducing health risks by decreasing or eliminating high-risk behavior.

The guide is the latest in a series of coordinated efforts by AHRQ to contribute to ongoing local and national dialogue related to how purchasers – a critical stakeholder group -- can work to improve quality of care. A listing of AHRQ resources specific to consumer financial incentives is available at www.ahrq.gov/qual/value/consincent.htm; a listing of AHRQ's pay for performance resources is available at www.ahrq.gov/qual/pay4per.htm. In particular, we recommend *Pay for Performance: A Decision Guide for Purchasers*,[3] which launched AHRQ's series of user-driven decision guides.

Just as consumer incentive strategies are in their infancy, so too is the related research agenda. Purchaser, consumer and researcher participants in a November 2006 colloquium convened by the Agency for Healthcare Research and Quality and the Commonwealth Fund[4] were charged with developing a research agenda on incentives; they identified a set of priority research questions, including:

- What is the impact of tiered networks on provider quality and cost?
- How can consumer financial incentives be used—alone or in tandem with provider incentives—to improve quality of care?
- How does consumer response vary by the size of financial incentive?
- Are financial incentives worthwhile, given the cost of paying for the incentives themselves and then marketing them?

As government purchasers, employers, health plans, and other buyers of health services consider or reconsider their quality agendas, they are encouraged to explore and debate sponsorship of consumer financial incentives within the context of an overarching local or national quality framework alongside pay for performance and more traditional quality improvement strategies. We hope this Guide informs purchaser deliberations, and we welcome feedback.

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[3] Dudley RA, Rosenthal MB. Pay for Performance: A Decision Guide for Purchasers. Rockville, MD: Agency for Healthcare Research and Quality; April 2006. AHRQ Publication No. 06-0047. Available at http://www.ahrq.gov/qual/p4pguide.htm. Accessed October 11, 2007.

[4] Toward a Research Agenda on Quality-Payment Alignment: Findings from an Invitational Colloquium. Rockville, MD: Agency for Healthcare Research and Quality; May 2007. AHRQ Publication No. 07-0055-EF. Available at http://www.ahrq.gov/qual/qpayment.htm. Accessed October 11, 2007.

Abstract

Leading employer groups, employer coalitions, State Medicaid agencies, and health plans are exploring the potential power of consumer financial incentives in influencing quality goals and are looking for the evidence base and illustrative examples to guide their decisionmaking processes. The Guide is an evidence summary organized around a series of 21 questions that span incentive design and implementation decisions as identified by user-stakeholders. That is, the users, in this case purchasers and consumers, wrote the outline for the publication and reviewed a formative draft. The Guide reviews the application of incentives to five types of consumer decisions: (1) selecting a high value provider, (2) selecting a high value health plan, (3) deciding among treatment options, (4) reducing health risks by seeking preventive care, and (5) reducing health risks by decreasing or eliminating high risk behavior. The publication of the Guide is timely for several reasons. First, employers are interested in consumer engagement strategies, including financial incentives, especially in light of the growing consumer-driven health plan movement. Second, and more recently, the President's Executive Order (August 2006) highlighted provider and consumer incentives as tools for transparency and a higher quality, more efficient health care system. And finally, State Medicaid programs, in response to grant incentives embedded in the 2005 Deficit Reduction Act (i.e., Medicaid Transformation Grants and Health Opportunity Accounts) are increasingly exploring the potential of consumer financial incentives.

Consumer Financial Incentive Checklist: 21 Questions for Purchasers to Consider

Introduction to Consumer Financial Incentives

√ **Question 1.** What are consumer financial incentives?

√ **Question 2.** What consumer decisions can be influenced by financial incentives?

√ **Question 3.** Do consumer financial incentives work?

Incentives to Select a High Value Health Plan, Provider Network, or Provider

√ **Question 4.** What is a "tiered" health plan?

√ **Question 5.** How do tiering and other benefit design options fit into the framework of consumer financial incentives?

√ **Question 6.** What quality and cost measurement criteria should be used to define tiers?

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√ **Question 8.** In the special case of incentives for choosing among treatment options, what information or decisionmaking tools, if any, should be offered as accompaniments to consumer financial incentives?

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√ **Question 12.** How should we think about consumer financial incentives and their relationship to public reporting of quality scores and provider incentives such as pay-for-performance?

Consumers' and Providers' Acceptance of Consumer Incentive Programs

√ **Question 13.** Are consumers in our community ready for financial incentives?

√ **Question 14.** Will consumers believe that the incentives are designed to improve quality, or will they suspect the only goal is to cut costs?

√ **Question 15.** When and how should we engage consumers in discussions about financial incentives?

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Special Populations

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√ **Question 18.** What special accommodations, if any, should be made for lower income, underserved, or sicker consumers?

√ **Question 19.** Is there a role for consumer financial incentives in an overarching disparities-reduction strategy?

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Private and public purchasers are acutely aware of persistent evidence of poor quality of care and ongoing increases in health care costs. Consumers' decisions can have an important impact on the quality and cost of care. This effect has led many policymakers and purchasers to consider providing financial incentives to consumers as a method to address health care quality, cost, or both.[1,2]

Question 1. What are consumer financial incentives?

In health care, a consumer financial incentive is either a reward offered to influence patients to behave in a particular way or, less often, a penalty for failing to do so. By using financial incentives, employers, public purchasers, or health plans hope to encourage patients to engage in behaviors that either may improve clinical outcomes (e.g., select a high quality health care provider or adhere to care guidelines for chronic disease) or reduce cost (e.g., eliminate unnecessary emergency room visits or decrease preventable hospitalizations). If either of these occurs, the value of health care—the quality of care received and amount of clinical improvement expected per dollar expended—improves.

The rationale for using incentives is to motivate the consumer in a way that the traditional health care system does not. For instance, most patients have had little basis on which to choose a primary care provider other than the recommendations of friends and family and the provider's proximity to their home or workplace. However, some employers have begun asking their employees to select value from among provider networks of affiliated physicians and hospitals during an open enrollment period. Provider networks are stratified into tiers based on both quality and cost. Employees are rewarded for choosing a higher value provider network through a lower premium—this is referred to as a "premium-tiered health plan." The goal of the premium incentive is to lead consumers to choose higher quality, lower cost providers and to stimulate providers to improve the value of the care they give. Other employers or plans use a similar approach to defining tiers, but ask the consumer to make their decisions about choice of provider and tier at the time that care is needed—this is referred to as a "point-of-service tiered health plan." The incentive is usually in the form of a lower copayment per visit.

Financial incentives also can be offered to encourage compliance with care plans. For example, in the traditional system a patient with diabetes might choose not to get blood sugar testing because she finds the trip to the laboratory inconvenient or she simply forgets. Offering the patient a small payment might make her more likely to get the test she knows she needs, and so the incentive improves clinical care relative to the traditional system.

Other incentives can be set up as penalties. For instance, an otherwise healthy patient in the traditional system may be willing to pay a $10 copayment for an office visit when he has a cold. If, instead, he is in a high-deductible health plan with a health savings account (HSA) from which he would pay the entire cost of the office visit, he may choose simply to use over-the-counter remedies without consulting a physician. If he makes this choice, the incentive inherent in a high-deductible health plan has reduced health service utilization relative to the traditional system without decreasing quality of care—at least in the case of a cold.

Question 2. Which consumer decisions can be influenced by financial incentives?

Many approaches to creating incentives have been taken, each addressing different aspects of consumer choice and behavior. These include:

- Creating tiers of providers (or drugs) based on quality and cost measures and varying consumer payments based on the tier chosen.
- Combining high-deductible health plans with savings or reimbursement accounts over which the consumer has discretion about spending.
- Offering cash or other gifts to consumers to encourage compliance with recommended care, such as movie tickets for attending a weight loss clinic.

Distinctions among these approaches can be made along two lines: the timing of the decision, i.e., either during the annual enrollment period or when care is needed; and the health status of the patient at the time of the decision, whether healthy, chronically ill, or having an acute problem (see Table 1).

A growing number of programs incorporate more than one incentive strategy at the same time. For example, Colorado Springs School District Number 11 offers several consumer incentives.[3] Some target provider selection, including a "centers of excellence" program for some complex surgeries. In this program, if employees choose the designated hospitals, they have lower copayments, and their family members may stay in nearby hotels at no charge. Other incentives target control of chronic diseases or health risk behaviors. To improve quality and reduce cost among patients with chronic diseases, the district's benefit design includes free blood sugar meters to encourage patients with diabetes to monitor their disease and offers lower copayments for use of generic drugs and supplies. The District also offers $15,000 in annual prizes related to diet and exercise—from bicycles, to coffee cups, to discounted health club memberships.

Question 3. Do consumer financial incentives work?

Many of the specific incentive strategies cited in Table 1 are relatively new, and there has not yet been sufficient research to know what their impact on clinical outcomes will be. Although their details vary, these strategies have two elements in common: an information component (which involves giving consumers data about the quality or cost of providers or about what constitutes good health care) and a financial component (the incentive itself, such as a lower copayment for using a higher value provider). There is not sufficient research on consumer financial incentive programs to know how well these two components work together, but there is literature about how consumers respond to the informational or financial signals when they are used separately.

Informational signals. It has been shown that in the right circumstances, consumers respond appropriately to information about quality; that is, they choose higher quality health plans or providers. For instance, Federal employees select health plans with better quality ratings;[4] and, after the release of report cards about surgical mortality rates in New York State, patients were found to be more likely to select cardiac surgeons whose records showed lower mortality rates.[5]

In a variety of other situations, as well, consumer choices seem to reflect appropriate use of information about quality of care, although the response to information about quality is usually small.[4,5, 6,7,8,9,10,11,12,13,14] In fact, in some situations, there is no detectable consumer response to information about quality of care,[15] although this lack may reflect reports about quality that are too confusing or are not marketed well to consumers.[16,17]

Table 1. Types of consumer financial incentives

Goal of incentive	Decision timing	Health status	Examples
Select a high value health plan or provider network	During open enrollment	Distribution between the healthy and ill reflecting underlying enrollee population	• Premium-tiered health plans
Select a high value provider	Varies—usually at the point-of-care	Patient is usually ill or needing service	• Point-of-care tiered health plans • High-deductible health plans with savings account options
Select a high value treatment option	At the point-of-care	Usually when the patient becomes ill, sometimes before	• Tiered drug benefits • High-deductible health plans with savings account options • Consumer incentives for disease management • Consumer incentives for preventive care
Reduce health risks by seeking care	Ongoing	Varies—the patient has a high-risk condition	• Consumer incentives to comply with recommended care (e.g., prenatal care)
Reduce health risk by changing lifestyle	Ongoing	Varies—the patient has a lifestyle factor that increases health risks	• Consumer incentives to encourage certain health behaviors (e.g., smoking cessation, weight loss)

Financial signals. Although many consumers respond appropriately to financial incentives, such as differences in health plan premiums or the price they have to pay to see a provider, consumer responses to price signals can be complex, and unintended consequences are common. At least two problems have been documented regarding consumer response to financial incentives.

One is that consumers sometimes cannot distinguish between necessary and unnecessary care, especially if financial incentives are offered without accompanying information about what constitutes high quality care. In the RAND Health Insurance Experiment, consumers were randomized to one of two groups: either free care or care with increasing levels of copayment. Patients who had to pay used care less often, but they tended to forego appropriate care as well as inappropriate care.[18] For example, patients with a low income who had high blood pressure were less likely to take their medications or see a doctor to adjust their medications based on their blood pressure readings.[19] Worst of all, this led to an increased risk of death.[20] However, none of these patients was offered any information or assistance in deciding what care was necessary, and it is conceivable—but has never been explicitly studied—that having access to such information would have improved their choices and their clinical outcomes.

The other problem is that when consumers do not have good information about the quality of providers, they might assume (rightly or wrongly) that the employer is constructing the tiers largely on the basis of price rather than quality. In fact, consumers sometimes interpret higher prices to mean higher quality.[4,5] To minimize this effect, a premium-tiered provider network could be combined with credible and persuasive information showing that the quality of the lower cost network is at least as good as that of the high cost network. Otherwise, the retirees—extrapolating from other industries in which higher price suggests higher quality, such as restaurants—may conclude that the higher cost network is of higher quality. Because quality is most important to people who are sick, and price is less important to these same people, an employer inadvertently could end up sending a price signal that results in the sickest retirees—those who utilize care the most—using the least efficient network.

These problems should not discourage the use of consumer financial incentives. They simply imply certain strategies that should be followed, depending on the type of financial incentive used.

Consumer financial incentives can be categorized into at least three groups: those that encourage selection of a high value provider, provider network, or health plan; those that promote selection of high value treatment options; and those designed to reduce health risks.

Financial incentives to select a high value provider, provider network, or health plan. These strategies involve financial incentives that encourage and reinforce consumers' decisions to choose high value providers or health plans. When consumers use price as a proxy for quality, both in choosing a health plan and in choosing a physician,[4,5] the assumption that "price equals quality" can be redressed by providing data about the quality of plans or providers in addition to the information about price. In the case of New York State, after a year in which cardiac surgeon-specific mortality rates were reported publicly, consumers began to use the report card information rather than price to identify high quality surgeons, and the impression that high price equaled high quality seemed to decrease.[5]

Financial incentives to select a high value treatment option. For some high cost clinical services, such as hip and knee replacements, there may be several alternative but equally good clinical options. For these situations, introducing incentives for patients to choose high value

treatment options could stimulate a patient-physician dialogue about the real value of the alternatives. For example, there has been a substantial increase in the number of consumer-directed ads related to new hip and knee replacement technologies and a plethora of medical device industry-sponsored, non-peer reviewed Web sites and chat rooms. As a result, patients with hip and knee arthritis often come to their orthopedic surgeon with a preconceived notion regarding which technology—in this case, which prosthesis—is most appropriate for them.[21] Despite the fact that many of the new versions of these prostheses have not been proved superior to existing products,[22,23,24] either in terms of clinical efficacy or safety, manufacturers charge much higher prices for the newer prostheses than for the older versions. In the current environment, these price differentials are borne by the hospital and/or the payer, with no financial accountability bearing on the patient or the surgeon.[25]

In response, some health plans and employers are exploring innovative benefit designs that would offer patients gold standard technology with the best long-term data regarding clinical efficacy and safety but would allow patients to "upgrade" to "premium" technologies—most of which are newer and have no long-term track record—for a higher copayment**.** These plans may give patients an incentive: to discuss their purchasing decisions with their surgeons; to learn about differences in outcome—or lack thereof—among the treatment options; and at least to consider the associated costs. This also would be a situation in which using a relatively larger incentive—in this case, a penalty—might be considered because of the large difference in cost among the options and the absence of data suggesting a difference in quality among the options.

Although high-deductible health plans paired with health savings accounts (HSAs) or health resources accounts (HRAs) also create incentives to reduce utilization, these plans risk causing the behavior observed in the RAND Health Insurance Experiment, where consumers made bad decisions, foregoing both appropriate and inappropriate care.[19] In implementing this approach, then, an important step would be to structure the incentives so that patients make as many optimal decisions as possible, at least when the preferred clinical protocol is clear. For example, Aetna offers HealthFund high-deductible health plans in which preventive care and drugs for chronic diseases have first dollar coverage. This approach ensures that patients in the HealthFund program do not, for example, stop important hypertension medications because of cost.[26] This strategy could reasonably be extended to other situations in which the preferred clinical option is to undergo treatment because there is nearly universal agreement that such care is warranted, such as when a patient has a new diagnosis of surgically removable colon cancer.

Financial incentives to reduce health risks by seeking care. Incentives can be applied to decisions about whether to seek preventive care (e.g., flu shots) and whether to invest the time and effort needed to control a wide array of increasingly prevalent chronic diseases (e.g., participating in an asthma disease management program). Fortunately, the available evidence suggests that consumers usually respond well to a variety of incentive strategies that target preventive or chronic care.[27]

The goal of the Asheville Project, run by the City of Asheville, NC, is to get Asheville employees with diabetes to use more services, such as blood sugar testing, to control their diabetes. With goals like these, one can be reasonably confident that consumers will not object, and that their physicians will express support for the program, which makes success likely. In

fact, in the Asheville Project, in which patients are given free diabetes supplies and other assistance and incentives, blood sugar control improved, sick days declined, hospitalization costs fell dramatically, and the total annual cost per patient fell by more than $1,200.[28]

Financial incentives to reduce health risks through lifestyle changes. Many employers and Medicaid programs nationwide have introduced incentives to encourage healthy behavior. These incentives have taken many forms, including: gifts, such as free dinners; lotteries among participants for gifts or cash; direct cash payments or penalties; and free health services or supplies, such as free nicotine patches.[29,30,31,32,33,34,35,36,37,38,39,40,41,42,43]

Of the programs of this type, by far the most widely studied are programs related to incentives to quit smoking or lose weight. In most cases, these incentives have been offered in conjunction with other programs targeting the desired behavior—for example, incentives to stop smoking are offered to one group together with a smoking cessation program, whereas a control group gets only the smoking cessation program. Thus, the impact of the incentives would only be that expected over and above the effect of participation in the educational program or support group.

In studies of such programs, the impact of smoking cessation and weight loss incentives has been small.[29, 32, 33, 34, 35 36, 37, 38, 39, 40, 41, 42, 43] Although they do boost participation in smoking cessation or weight loss programs, they generally have little lasting effect on actual smoking cessation rates or weight loss. This result came about, in part, because the control groups generally had the desired response as well. In the example of a smoking cessation incentive, both the control and incentive groups often had high quit rates as compared to groups participating in no program at all, but ultimately participants in incentive groups usually did not quit smoking more often than those in control groups.

It may be that the incentives induced people to join programs, but those people were not otherwise ready to make lifestyle changes and so did not stick with the behavior change. The more effective approach may be to facilitate lifestyle changes for those people who are ready for them—that is, people who would enroll in the program even without the incentives. If that is the case, it is more cost effective simply to offer smoking cessation and weight loss programs—or at least to reduce barriers to them—than it is to add incentives over and above better access to the programs.

Incentives to Select a High Value Health Plan, Provider Network, or Provider

Question 4. What is a "tiered" health plan?

Tiered health plans offer provider lists sorted into tiers based on quality of care, cost, or some combination of these. Patients in these plans are given financial incentives in the form of lower out-of-pocket costs—copayments or premiums—to use providers in the preferred tier. Other providers may be used, but the patient must pay more to use them.

The first approaches that health plans took to arranging providers in tiers in the 1990s and in the early 2000s were based wholly or primarily on the providers' agreement to discounted fee

schedules (or, less often, on measures of total annual cost). More recently, however, the trend has been for plans to incorporate quality into the equation, although the relative weight given to quality versus cost varies among programs. Another major change is the increasing use of measures of efficiency, such as the average expenditures required to treat an episode of bronchitis, rather than agreement to discounted fees or prices as the measure of "cost."

There is substantial information from the Medicare program and other sources that quality of care is not correlated with cost or with efficiency.[44] This implies that, in most parts of the country, providers can be arrayed along two axes—quality and efficiency (see Figure 1)—and that some providers will rate favorably on both dimensions whereas others will not. As a value-enhancing strategy, health plans could, for example, reduce out-of-pocket costs to patients who choose providers with both higher quality and lower costs (lower left hand corner of Figure 1).

The application of tiering can occur either at the point of care—when a patient has a clinical need—or annually during the open enrollment season (this is referred to as a premium-tiered plan). An example of the point-of-care approach is the plan offered by Boeing to its employees. When Boeing beneficiaries need hospital care, they must choose to use either a hospital compliant with Leapfrog measures or a non-compliant hospital.[a] If the patient uses a Leapfrog-compliant hospital, all costs are covered after the deductible. If a patient chooses a non-compliant hospital, the patient must pay 5 percent of the bill.[45]

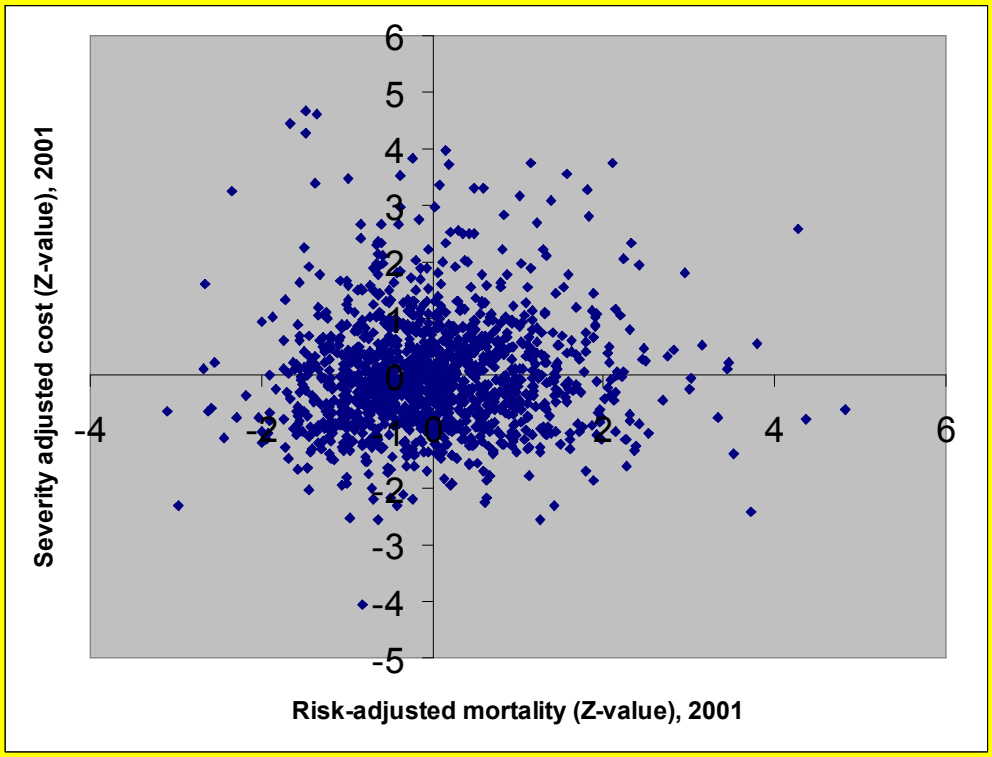
United Healthcare (UHC) has a similar program, the UnitedHealth designation program.[46] In this program, UHC designates physicians from 21 specialties as either high quality (one-star physicians) or both high quality and low cost (two-star physicians). Enrollees pay the lowest copayments for using designated two-star providers, the highest copayments for providers with no stars, and medium copayments for one-star providers. An innovative feature of this program, which may boost credibility with consumers, is that physicians cannot be designated as being low cost without also being high quality—that is, there is no "one-star" designation for being only a low cost physician.

The Buyers Health Care Action Group (BHCAG) is a Minnesota-based coalition of employers that began purchasing health care together in 1993. In 1997, BHCAG introduced the Patient Choice program, the Nation's first premium-tiered health plan.[47] In Patient Choice, local provider networks are placed into performance tiers based on both quality of care and risk-adjusted total cost of care. BHCAG members' employees can choose among three tiers of networks, with decreasing performance ratings associated with increasing monthly premiums. In 2006, patients in Tier 1 networks had the lowest premium; patients selecting Tier 2 networks paid the lowest premium plus 16 percent of total costs; and patients selecting Tier 3 networks paid the lowest premium plus 38 percent of total costs. This tiering strategy is accompanied by extensive resources for consumers to understand each network's performance rating, including

[a] The Leafrog Group is a voluntary employer association aimed at mobilizing employer purchasing power to recognize and reward improvements in health care safety, quality, and customer value. The Group's membership includes representatives from many of the Nation's largest corporations and public agencies that buy health benefits on behalf of their employees, dependents, and retirees. For more information on the Leapfrog Group and Leapfrog measures, go to www.leapfroggroup.org. Accessed on October 10, 2007.

reports of quality measures, such as which physicians have received Bridges to Excellence awards and the hospitals' performance ratings on Leapfrog and other measures.

Figure 1. Example of data that could be used to place providers into tiers



Note: Figure depicts mortality rate vs. cost in 2001 among a subset of hospitals participating in the Healthcare Cost and Utilization Project (HCUP). Hospital performance is assessed in terms of risk-adjusted mortality rates and risk-adjusted total cost of care. Those hospitals that provide high quality care at a low cost are those providers in the lower left hand corner of the Figure.
Data source: Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) for 10 States (over 1,300 hospitals). Agency for Healthcare Research and Quality.

Efforts to establish tiering approaches have been hampered by a paucity of adequate and reliable data on quality, creating some concern that tiering will be based primarily on cost or efficiency. For this reason, some tiering programs include only conditions for which data on quality are available; that is, there may be tiers among hospitals for patients seeking maternity services if data are available about the quality of maternity care, but no tiers for neurosurgical services in the same hospitals if there are no data on the quality of those services. Another important limitation of some tiering programs is that costs are sometimes assessed in terms of expenditures per component of care, such as per hospital day or fee per visit, rather than an overall measure of the costs of treating a particular disorder, disease, or condition.

Question 5. How do tiering and other benefit design options fit into the framework of consumer financial incentives?

Premium-tiered health plans ask the consumer to choose a network of providers during the annual enrollment period—which for most consumers is not a time of immediate clinical need. Other approaches create incentives that are present whenever the consumer faces a specific clinical decision. Health plans with a high deductible in combination with an HSA create an incentive for patients to seek conservative options, such as a trial of bed rest before having magnetic resonance imaging (MRI) for low-back pain.

There are strengths and weaknesses in each approach. On the one hand, some might argue that it is more feasible to get the consumer's attention during an open enrollment period, when consumers expect to receive information about health benefits and prices. Patients with a chronic illness may be particularly motivated to seek information about providers' performance ratings. On the other hand, healthy consumers usually are not anticipating care utilization, and they may not take the necessary time to review data about quality and cost during the open enrollment period.

In addition, most plans and providers have good results in some clinical areas but need improvement in others. Incentives that target decisions during annual open enrollment, to some extent, assume that there are providers or networks that are preferable or less preferable for the entire spectrum of clinical medicine, which may not be the case.

In contrast, point-of-care approaches, whether involving differential copayments for higher performance providers or incentives to choose specific treatment options, are just the opposite. They highlight the link between clinical and financial outcomes and allow the consumer to choose their provider after they have become ill, which could permit them to better tailor their decision to the specific circumstances and needs they have. However, in some instances—especially when the consumer has insufficient information, education, or time—these approaches may be burdensome to the consumer.

Unfortunately, there is no evidence yet on the relative quality and cost implications of annual enrollment period incentive strategies versus point-of-care approaches.

Do incentives to reduce drug costs work?

One of the areas in which consumer financial incentives have been applied and studied most closely is the use of tiered copayments for drug coverage. The goal of tiering drug coverage is to direct patients to choose the lower cost option from among a group of drugs that insurers consider potentially equally effective.

Tiered drug benefits that offer lower copayments for drugs in lower tiers (e.g., generic drugs) generally have been successful in decreasing the use of higher cost drugs for many drug classes.[48,49,50,51,52] However, tiering programs that focus solely on cost can have the effect of increasing out-of-pocket drug expenditures for a subset of patients, increasing the risk that they will stop buying the medications rather than switching tiers. Therefore, although consumer incentives designed to discourage overspending on drugs have reduced total drug costs, they sometimes keep patients from using drugs they need to prevent complications later.

In 2005, 74 percent of employer-sponsored drug coverage had three or four tiers, compared with 27 percent in 2000. In 2006, the average copayment for generic drug tiers was $10, as opposed to $22 for preferred brand-name tiers and $35 for non-preferred brand-name tiers.[2] Increasing consumers' out-of-pocket costs for drugs is potentially a concern because, although there are few studies of the health impact of implementing tiered benefits or adding additional tiers,[53,54] there are substantial data showing that cost-sharing applied with a broader brush—for instance, increasing all prescription copayments or dropping brand-name coverage—leads to underuse of drugs that are actually important to a patient's care.[55,56,57,58,59,60,61,62,63]

This sensitivity to medication cost occurs even in high-risk groups. Among seniors with a history of coronary artery disease or myocardial infarction, the use of statins—important cholesterol-lowering drugs—was 27.4 percent among those with drug coverage provided by their former employers, but only 4 percent among those without drug coverage.[59] Additionally, worse health outcomes,[64] such as uncontrolled hypertension, worsening heart disease,[65] increases in emergency room visits,[66] hospitalizations,[65] nursing home admissions,[66] serious adverse events,[66] and declining self-reported health status,[65,67] have been associated with greater cost-sharing.

An example in which consumer financial incentives have been applied more selectively is "reference pricing." This concept involves coverage of a preferred drug among a class of drugs—for example, statins—at low cost, and requires patients who choose other drugs within the class to pay the difference in price out of their pocket. The distinction between reference pricing and tiering generally is that, in most tiered formularies, if there is no generic drug within a class, then all the drugs are in a higher copayment tier. A reference pricing strategy recognizes that, for patients who need a drug from a brand-name-only class, leaving those patients with no alternative but high copayments will reduce adherence to the drug regimen. Therefore, a preferred brand-name drug in that class should be chosen—usually after negotiating for a discount from the manufacturer—and offered at a low copayment as the reference priced drug.

In theory, reference pricing—and tiering generally—is most applicable in classes where several drugs are equally effective but vary in cost, especially if the health plan or government purchaser

is able to negotiate a good price for one of the drugs in the class. A reference pricing strategy has been adopted in parts of Canada for selected drug classes without increasing hospitalization or decreasing medication use.[53,54]

In summary, simply increasing copayments for all drug classes or dropping brand-name drug coverage altogether will move some patients to lower-cost drugs. However, this will also increase the rate at which patients with chronic diseases stop taking important medications, which can lead to worse health and increased long-term costs. More selective financial incentives—such as reference pricing within specific classes of drugs in which there is an effective, low-cost option—appear to be more effective in shifting medication use without having a negative health impact.

Question 6. What quality and cost performance measures should be used to define tiers?

Table 2 lists criteria sometimes considered in evaluating candidate performance measures. These criteria include the potential impact of improving performance on the measure, based on how common or severe a condition is or how much variation in performance there is among providers. Recently, it also has been proposed that the potential impact on disparities should be considered when choosing performance measures.[68] However, practical considerations can also be important, such as whether a measure can be calculated in a transparent way from a reliable data source at a reasonable cost and whether it can be used in quality improvement initiatives or for consumer choice of provider.

Table 2. Frequently used criteria for selecting performance measures

1. Extent to which the measure addresses a condition or conditions with high clinical impact (that is, is the condition common and/or severe).
2. Extent to which the measure generates information about quality, efficiency, or both.
3. Extent to which the measure addresses disparities in care.
4. Extent to which there evidence of variation in performance among providers on this measure.
5. Extent to which the calculation of the measure is transparent to providers.
6. Extent to which there a valid source for the data needed to calculate the measure. (What is the cost of acquisition and validation of those data?)
7. Extent to which patients or their families would use the measure to choose a provider.
8. Extent to which providers could use the measure to improve care.

Source: Dudley and Rosenthal; 2006[68]; Rosenthal and Dudley, 2007.[69]

Because a major goal of the use of incentives may be to reduce total costs, some employers and government programs use cost or efficiency measures—ideally in combination with quality measures—as a basis for designating preferred providers. The Agency for Healthcare Research

and Quality recently released a summary of the state-of-the-science on efficiency measurement (see the box "Measuring Efficiency," below for more information).

Measuring Efficiency: The First Step in Incorporating Efficiency into Consumer Incentive Strategies

Efficiency measurements may have a place in a consumer incentive strategy, but the use of efficiency measurements without companion quality indicators may not benefit either the purchaser or the consumer.

McGlynn[70] suggests that we measure efficiency as the resources required to create a health care product. Efficiency can be measured either for a specific service, like providing chemotherapy for a patient with colon cancer, or for specific outcomes, like preventing death from colon cancer. In the current environment, efficiency is more often assessed relative to services than to outcomes. The focus on cost per service raises the issue that services might not be comparable—for example, that chemotherapy is delivered at Clinic A in such a way that fewer complications ensue than at Clinic B, or that the doctors and nurses are more empathetic and supportive at Clinic A than at Clinic B.

The calculation of resources used can address either physical inputs—for example, the number of doctor visits and nursing hours spent over the course of chemotherapy at Clinic A—or the dollar value of the input. The approach focusing on physical inputs is called "technical efficiency," while the approach focusing on dollar value is referred to as "productive efficiency." Most existing commercial efficiency measurement software, known as "episode groupers," is used to measure productive efficiency for services—for example, the dollars required to complete the chemotherapy course at Clinic A.

Most efficiency measurement systems are proprietary and are available from a small number of vendors specializing in this area. They generally report observed-to-expected cost ratios, or similar ratios, after some adjustment for severity of illness or case mix, either for episodes of care or for a population of patients over a period of time. Assessing the cost of chemotherapy for colon cancer at Clinic A is an example of the episode-based approach. A population approach involves assessing the total expenditures on a group of patients, usually over the course of a year, correcting for the illnesses they experience during that time period. While the population approach is in some ways analogous to summing episode expenditures over a year, it also incorporates the frequency of episodes in the population, correcting for the diseases that its members have.

There are some important caveats to the use of these commercial software packages to assess efficiency. First, none of the measurements generated by these packages have been carefully validated in the way that drugs, for instance, are evaluated before they are approved for use. In general, existing commercial systems are not explicitly designed to account for quality of care or outcomes. In fact, the Ambulatory Care Quality Alliance (AQA), among others, suggests that we use the term "cost" to refer to all measures that lack a quality component. Either definitional framework for cost and efficiency leads to a similar recommendation: purchasers should consider

presenting efficiency measurements together with quality data—otherwise, consumers may conclude that the program addresses only cost control on behalf of purchasers, rather than value and other factors that reflect the consumers' own interests. In addition, if providers offer low cost but poor quality, they may score well on efficiency measurements in the short term but cause greater long-term costs.

For all of these reasons, the use of efficiency measurements without simultaneous measurement and reporting of quality of care in the same clinical areas may not actually benefit purchasers. A better approach, for example, would be to measure the costs of chemotherapy for colon cancer at Clinics A and B while also calculating survival rates and surveying patients about their experiences with the respective clinics.

A second measurement issue related to tiering is that providers who have high quality and/or efficiency on one service may perform poorly on another. In most existing tiered plans, the tiering method puts providers in the same tier for all categories of care; that is, Hospital A is simply given "preferred" status rather than being identified as "preferred" for orthopedic surgery but not for cardiac care. With this approach, quality criteria should cover as broad a spectrum of care as possible. Alternatively, some tiered plans target only the categories of care for which measurements of clinical quality are available.

Question 7. What do consumers want to know about the quality and cost measures used to create tiers?

There are no studies that define what consumers want to know about, or even whether consumers understand, the basic economic concept behind tiering or any other incentive program. It is clear, however, that consumers respond to price differences among providers or health plans. Financial incentives most affect those people who are in poor health,[71] use more medications,[57] have more chronic health problems,[57,58,72,73,74] and have a lower income.[54,75,76,74]

There are limits on how much complexity consumers can understand in an incentive plan. For instance, tiered pharmaceutical formularies are one of the simplest and most common forms of tiering, yet only 29 percent of patients in such plans know their usual copayments, and only 43 percent know whether there are limits on the total number of medications or the total medication costs that their plan covers.[77] This low degree of comprehension is consistent with findings reported earlier, which confirmed the difficulty that patients have with understanding complex benefit designs such as those that have been offered by some Medicare HMOs.[78,79,80]

Among commercially insured patients, knowledge about benefit coverage—outpatient, inpatient, mental health, emergency room, and out-of-area services—is also poor.[81] While many enrollees in commercial plans know about coverage for hospitalizations (90 percent) and doctor visits (80 percent), fewer know whether their insurance covers mental health (54%) or treatment for alcohol abuse (43 percent).[82] Those who are least likely to be knowledgeable about their plans are those who are less educated,[77,83,84] have a lower income,[83] are not already enrolled in the program,[80] are older,[85] and are members of a minority group.[84,85,86]

The implications of these findings vary depending on the approach to consumer incentives used. Consumers' lack of knowledge is of particular concern, for instance, when point-of-care tiering or tiered formularies are used to influence decisions that occur frequently and with time constraints, such as choosing a medication to be prescribed during a doctor's office visit. To make an optimal choice of medication often requires the patient and the provider not only to have access to accurate information quickly, but also to be able to process complex information about the benefits and costs of various treatment options within a short timeframe. Many studies show that patients[84,86] and providers alike currently lack timely access to these data.[87] For example, 54 percent of patients who self-reported being in a tiered plan said they are never or only sometimes aware of their out-of-pocket drug costs at the time a drug is prescribed for them.[86] In contrast, there may be better opportunities for information gathering and for careful consideration when decisions must be made less frequently, such as decisions about selecting a doctor or the annual choice of a health plan, or when the decision-making process—while it may have a deadline—can be conducted over weeks or months.

Many of the more vulnerable patients, such as those who are elderly or very sick, may not be the primary decisionmaker in choosing among their health care options. Among Medicare beneficiaries, only 68 percent made their own health insurance decisions; 24 percent received help, and 9 percent had a proxy.[78] There is some indication that this lesser degree of involvement may be because health decisions are increasingly complicated, requiring help even when consumers may be capable of making decisions by themselves in other areas of life.[88]

There are studies in the Medicare literature showing that people want and use many different sources of information about health care programs,[83] and they use information in multiple formats before they enroll in a plan. In one study, seniors eligible for Medicare wanted different sources of information, including addresses, phone numbers, a Web site, and postcards about seminars; and they wanted this information at different sites—Social Security offices, senior centers, doctor's offices, pharmacies, libraries, churches, and grocery stores.[89] In practice, consumers want and actually use information from multiple sources. Medicare beneficiaries used, on average, three sources of information: advertisements (55 percent); newspaper or magazine stories (47 percent); friends or family (44 percent); experiences with HMOs (34 percent); and television (33 percent).[83] With respect to their decision about enrolling in Medicare Part D and choosing a plan, 27 percent of beneficiaries said they talked to a pharmacist, 26 percent to a physician, 17 percent to an insurance agent, and 17 percent to a counselor.[90]

It is important not only to measure a person's knowledge about information sources but also to assess what information is actually used. With respect to Medicare Part D, 64 percent of beneficiaries knew about the toll-free number, and 62 percent knew about the Web site, but only 12 percent had called the hotline, and only 9 percent had looked for information on the Web site.[90] There is less research about how seniors use these information sources after enrollment—for example, research that would help determine how to give them the information they need about drug benefits or keep them up to date with changes.

The source of information is also important. Medicare beneficiaries have different levels of trust, depending on the information source. For example, the Social Security Administration is a

source most seniors would trust.[78] Among those who are 64 years old and younger, 43 percent say they have limited knowledge about where to find information.[89]

Incentives to Select a High Value Treatment Option

Question 8. In the special case of incentives for choosing among treatment options, what information or decisionmaking tools, if any, should be offered to consumers as accompaniments to financial incentives?

As most patients initially lack relevant medical knowledge, they cannot be expected to make good medical decisions without help. The introduction of incentives, in itself, will not obviate the need to help patients facing difficult clinical decisions understand their situation and their options.

In those areas where good decisionmaking aids are available for patients, they have been very beneficial. However, for most clinical conditions, we do not yet have such decisionmaking aids.

Patients who have access to decisionmaking aids have greater knowledge about their options, have more realistic expectations about the impact of treatment, and are more active participants in making decisions about their care. Interestingly, informed patients are more conservative than their doctors and are about 20-25 percent less likely than their physicians to choose the most aggressive surgical option for a particular condition.[91] Among the clinical areas in which decisionmaking aids are available are prenatal screening, screening for breast and prostate cancer, management of actual symptoms from gynecologic and prostate disease, management of back pain, and treatment options for coronary artery disease and several cancers.

Decision aids are available from a variety of medical specialty societies and commercial vendors, although not all have been studied equally well or are of equivalent quality. Decision aids vary in the content they include, but generally they explain the underlying condition and its prognosis, describe the treatment options available, and discuss the effectiveness of each option. Many different media are used, including written materials, audio or videotapes, interactive computer programs or Web sites, and counseling or educational sessions—but there is little research to demonstrate the relative strengths of one medium versus another. In general, information from a variety of media and repetition are preferable because the topics are usually complex, and patients may not be prepared to hear a message clearly the first time it is presented. Narratives about the results of different options, especially when presented by people whose background is similar to the patient's, may be particularly effective in helping patients understand the differences among treatment options.[92]

Decision aids are best when used in the larger context of the patient's involvement in medical decisionmaking. Five elements are essential in enabling patients to realize this participation:[93]

- The patient is aware of and understands all the treatment options available to him or her.
- The patient understands the risks and benefits of the available options.
- The patient realizes that he or she has a right to play an active role in decisionmaking.

- The physician encourages the patient's participation in choosing treatments.
- The patient is given time to consider the decision.

These elements emphasize two factors: first, getting the patient and the physician to recognize that a variety of options are available—patients initially may not know that they do have options, and physicians may tend to focus on the option that they believe the patient should choose; and second, acknowledging that the patient has a role in the decisionmaking process and needs time to make a decision.

This discussion of decisionmaking aids focuses on situations in which there is a major decision to be made at a specific point in time—for example, "Should I have surgery or radiation therapy for my prostate cancer?" A conceptually related issue, but one with a different timeline, is involvement of the patient in the management of his or her chronic disease. In that situation, given the right support, patients can take over decisionmaking about managing their condition from their health care providers—for example, a patient with heart failure could adjust her medication doses based on instructions from her physician without necessarily having to have an office visit.

Some patients' self-management programs have produced higher quality outcomes at lower costs than conventional models of care.[94] Several elements are essential to enabling patients to manage their participation in such a program (see Table 3). These include a self-management toolkit that teaches the patient how to recognize symptoms that suggest a change in treatment is needed, how to make the change and assess its effect, and then how to make adjustments as needed, even without consulting the physician. This approach also presumes that patients are taught simple testing procedures, such as checking their blood sugar levels, and already have the prescriptions needed to change their medicines or dosages.[94]

Table 3. Essential elements to enable patients' self-management of chronic diseases

A self-management toolkit that teaches patients how to: • Recognize when a treatment is needed, including any over-the-counter medications. • Administer the treatment. • Assess their response to the treatment. • Make appropriate adjustments without involving the provider.
The patient understands how to administer simple diagnostic tests that are currently administered by health professionals (e.g., checking blood sugar levels in the case of diabetes).
The physician has prescribed, in advance, the necessary medications—including dosage adjustments—and has provided specific, preferably written, instructions for making adjustments.

Source: DeMonaco and von Hippel, 2007.[94]

Asthma offers a classic example of the opportunities for patients' self-management. With the appropriate instructions and prescriptions, a patient with asthma could learn to recognize increasing shortness of breath as a potential reason to change his inhaler regimen. He could then

perform a simple test with a reusable, hand-held peak flow meter costing about $20 to see if his airflow is reduced. If it is, he could take extra doses of one of his medications and test again later to see if his peak flow has improved. If not, he could add an inhaler to reduce lung inflammation. This self-management can be done safely and often without involving his physician for every episode of increased shortness of breath.

As with decision aids, self-management tools are available from a variety of medical specialty societies and commercial vendors. Vendors of disease management systems and products often incorporate a self-management program into the overall disease management method. Again, not all of these programs—whether for self-management or disease management—are of uniform quality or have been tested thoroughly, so it is important to incorporate a plan for evaluating the impact of the program into the initial arrangements for implementing them in the patient's care regimen.

In general, there has been less use of both decision aids and self-management tools than would be optimal. Although there is no research addressing the impact of incentive programs on use of decision aids or self-management, it is logical to anticipate that incentives may focus patients' and providers' attention on the fact that there are important choices to be made, so that patients and their providers may be more willing to use decision aids and self-management tools.

Implementing Consumer Financial Incentive Programs

Question 9. Should consumer financial incentives be structured as rewards, penalties, or a combination of these two approaches?

There is no specific evidence from health services research to address whether consumer financial incentives should be structured as rewards, penalties, or a combination of the two. In economic situations other than health care, it has been shown that people are less responsive to potential financial gains than they are to potential financial losses, even when the gains and losses are of equal dollar amounts.[95] In the midst of a medical problem, moreover, patients are even less likely than usual to adhere to economists' standard assumptions about rational choices.

With these caveats, it is likely that both penalties and rewards can be used in creating incentive programs. The identification of any specific price differential as a reward or a penalty could be situational. On one hand, if during open enrollment an employer offers a choice of health plans in three different performance tiers with three different levels of employee contribution, the employee who previously has chosen a plan in the lowest cost tier but now wishes to change plans might see any additional contribution to join a middle-tier plan as a penalty. On the other hand, employees in the highest contribution plans may perceive only "rewards" if they were to move into the same middle-tier plan, especially if it is clear that providers in the middle tier plan provide a similar level of quality.

If, conversely, the approach is to use point-of-care incentives, purchasers' preferences for rewards or penalties may depend on the likelihood of underuse versus overuse of services. For example, multiple small rewards—like the slow accumulation of frequent flier miles—may be effective to reduce underuse of chronic disease interventions, just as airlines are trying to reduce

consumers' underuse of their planes and credit cards. In other circumstances, penalties may be appropriate—such as charging a very high copayment for the patient who insists on getting an MRI during the first week of onset of low-back pain, even though he has no neurological symptoms suggesting a serious cause.

Question 10. What are the options for phasing in consumer incentives?

One approach to phasing in an incentive program is to start with public reporting of health care providers' quality ratings combined with a program of public education about differences in quality of care. After a certain level of consumer awareness of quality and cost variation has been achieved, the consumer incentives can then be introduced, for instance, through tiering. The program sponsors might start the incentive program with a limited subset of the measures that had been in the public report—focusing, for example, on one or a few clinical areas, such as maternity care—and then broaden the incentive set over time. That was the approach used by Wisconsin employers, working through the Alliance—an employer cooperative based in Madison. In 2001, the Alliance issued its first public report of hospital quality, which was limited to maternity care and orthopedic and cardiac surgery. The release of the report card was followed by an extensive consumer education campaign orchestrated through news media, employers' human resource offices, and labor unions. Initial evaluation of this program showed that consumers who had seen the reports were aware that there were differences among hospitals, and they correctly identified high and low performance hospitals. After an apparently adequate level of consumer understanding of the issues was achieved, some Wisconsin employers began pursuing consumer incentives.[17]

Other options for phasing in consumer incentives include doing a pilot test focusing on a limited geographic area or on specific groups of patients, such as maternity patients only.

Still another approach to phasing in incentives is being taken in Phoenix. The initial goal of the Phoenix Healthcare Value Measurement Initiative (PHVMI) is to integrate existing data from a variety of sources, such as Medicare, Medicaid, hospitals, health plans, and laboratories, and with those data, to develop measures that a broad range of stakeholders agree can be used to improve the quality and cost of health care in Arizona.[96] These stakeholders include providers, payers, and consumers. PHVMI will proceed in two phases over 18 months. First, PHVMI partner data will be integrated and baseline reports regarding local standards of practice and disease profiles will be developed to provide a context for phase two. During phase two, stakeholder work groups will evaluate the accuracy, fairness, and completeness of proposed measures of quality, efficiency, and value. After this period of development, it is anticipated that the measures will be used in a variety of ways, which include sharing the data with consumers and offering provider or consumer incentive programs.

Advantages of phasing in incentives are that it allows time to educate consumers about quality differences and permits testing of consumers' responses to various types of incentives before full-scale implementation of an incentive program. Phasing in the incentives also gives providers time to understand the impact of the program and enables the employer or government sponsors to evaluate the small-scale impact before applying an incentive program more broadly.

Question 11. How much money should be put into consumer incentives? How big does the incentive need to be to effect a change, and does the level of incentive necessary vary by the specific behavior that is the object of the incentive?

There is no single answer to the question of how much money is needed for consumer incentives to effect change. Characteristics of both the consumer and the decision being targeted by the incentive clearly matter. Consumers with a lower income are likely to be more responsive to incentives. In terms of the decision being targeted by the incentive, a smaller incentive is generally needed to influence consumers to comply with goals that are easier to accomplish—for example, it is easier to get a flu shot than to quit smoking. A smaller incentive also can influence consumers to comply with goals that are more obviously beneficial to their health—for example, patients with diabetes may respond better to incentives to get their blood sugar checked than they would to incentives to use a doctor who is "more efficient" in their diabetes care, as patients might assume that "more efficient" means the doctor would spend less time with them.

In terms of incentives to select high value providers, incentive program sponsors may need to factor in issues of proximity and geography. If a plan's preferred providers are all clustered in one part of town, inconvenience may prevent consumers who have to travel across town from choosing providers that perform better, unless the incentives offered are sufficient to compensate adequately for the time and travel required.

In the Tufts Navigator plan, hospitals are tiered based on their performance, but among tiers, the difference to consumers is only $150 to $200—just a fraction of the cost of any hospitalization.[97] Of course, from the consumer perspective, an increase in copayment of $150 may be quite large, which is why the designers of this program expect consumers to respond to the incentives. Nonetheless, since the incentive is small relative to total cost, this program and others like it maintain much of the key insurance and risk-spreading benefits of being in a health plan in the first place.

Question 12. How should we think about consumer financial incentives and their relationship to public reporting of quality scores and provider incentives such as pay-for-performance?

No studies have compared the effects of consumer incentives like tiering relative to public reporting of quality scores or the use of provider incentives. There is evidence that providers respond to both public reports about their performance[98,99] and to direct financial incentives.[100]

The first step is the same for each of the three approaches: the collection of provider performance data, which can then be used for multiple purposes, even simultaneous provision of public reporting and provider and consumer incentives if desired. Thus, the approaches may best be viewed as complementary rather than mutually exclusive.

A potential connection between consumer and provider incentives is their impact on the patient-provider relationship. Although this connection has not been studied directly, it is logical to anticipate that incentives for patients and providers each may be more powerful if they align the goals of the patient and the provider.[68] For example, some purchasers in the Bridges to Excellence Diabetes Care Link program—a provider incentive program—also offer their employees rewards for participating in improving the management of their diabetes.[101]

Acceptance of Consumer Incentive Programs by Consumers and Providers

Question 13. Are consumers in our community ready for financial incentives?

Consumer incentive programs are currently underway in a number of different types of communities and involve large and small health plans, for-profit and not-for-profit providers, public and private payers, and all types of market structures. These myriad programs suggest that consumer incentives could be implemented in a wide range of communities.

As consumers have shown the ability to respond appropriately to data about quality of care in so many situations and regions of the country,[4,5,6,7,8,9,10,11,13,14] we can assume that a certain number of consumers are informed enough to be able to understand and make decisions about quality of care. Therefore, a relevant question is whether the community is ready to assist patients' health care decisionmaking in a way that would improve the value of care. The answer to this question turns on whether the community, or the employer or program offering the incentives, is able to: put the quality-of-care information together in a way that enhances consumers' understanding of performance differences,[102] design financial incentives that better align the goals of consumers with those of the program sponsor,[103] and disseminate the information about health care quality and cost in such a way that consumers find it credible.

Of these, the issue of information dissemination has been studied the least. Consumers are much more likely to use data if they believe the data to be fair and accurate. Trusting the source of the information is key,[104] so friends and family members are often relied upon for health care information. Physicians are another trusted source. However, the distribution of performance data needs to be better organized to make incentives most effective. To date, too little attention has been paid to private and public community organizations as additional distribution channels.[102] For instance, churches and labor unions—because unions represent members' interests on other issues and sometimes serve as health plan purchasers—are good candidates for the dissemination of information about health care value.[102]

Question 14. Will consumers believe that the incentives are designed to improve quality, or will they suspect the only goal is to cut costs?

Consumers' response to performance data and any associated incentive is likely to be influenced substantially by the extent to which they are convinced that the data presented are fair and accurate. Consumers' conviction will depend on the other types of information they receive

about the measures and the sources of the information. A provider who is not rated "high performance" may tell patients that the measurement is wrong in some way, or that the health plan just does not want to pay for the best providers—leaving consumers with conflicting signals about the data regarding quality performance. These instances become issues of credibility: does the consumer believe the source of the report card is more credible than the provider who rejects being labeled a poor performer?

Similar, but probably more severe, will be situations in which the incentive is to avoid overuse of health care services or to choose a provider who is more efficient. In these cases, consumers may suspect that the goal is to reduce cost to the employer or government program, regardless of the impact on quality of care. In such situations, consumers' resistance can be expected to be significant unless the program's sponsor can provide very credible evidence that the lower utilization targeted will not harm the consumer's health.

One obvious way to counter this potential consumer suspicion is to clearly incorporate quality as a predominant decision factor in designing a tiering system or other incentive.

Another strategy to address the credibility issue is for purchasers and health plans to partner with other stakeholders in the accrual of performance information. For instance, in the Phoenix Healthcare Value Measurement Initiative (PHVMI), providers, health plans, employers, and government representatives are collaborating to decide what factors to measure and how to report their findings in the Phoenix area.[96] Basing ratings on a collaboration such as this will lessen the likelihood that providers will question the accuracy of the data made available. In addition, because PHVMI itself is a non-profit, multi-stakeholder collaborative housed at a provider—St. Luke's Health Initiatives—and Arizona State University, the data produced by PHVMI are likely to be viewed as more credible than if similar results were reported by only one health plan or employer.

Question 15. When and how should we engage consumers in discussions about financial incentives?

The timing and mechanism of consumers' engagement in discussions about financial incentives depend on the decisions to be influenced. If the goal is to encourage consumers to select high performance health plans or providers, the first issue to be addressed is when and how to educate them about variations in quality of care. Available data suggesting that consumers can learn and retain information about the quality of providers' care over time[5,16] imply that offering such information can be effective, even before the consumer has a clinical event. Thus, although people suffering chest pain seldom have time to consult a hospital's report card about mortality rates from heart attack, they may use the report card in deciding which doctors and hospitals to use before they ever know they have heart disease.

Once consumers appreciate the fact that quality varies among providers in their community, then when and how they are engaged in the financial implications of medical care decisions may vary, depending on both the individual consumer and the decision.

It clearly matters how information about providers' performance is presented to consumers.[92] The information should be presented in as simple a way as possible, so that consumers can easily evaluate providers' performance. For instance, clinicians are used to thinking of outcome rates with 95 percent confidence intervals, and they often think that failing to include confidence intervals in presentations of performance data is misleading. However, consumers find confidence intervals confusing and actually make better decisions when they are presented with data without confidence intervals. Moreover, many of the potential adverse outcomes in health care, such as death from a minor procedure, happen only rarely, and in such cases even physicians are better able to interpret data presented as frequencies—3 out of 100—rather than percentages—3 percent.[16]

In encouraging consumers to choose high value treatment options in high-deductible health plans with savings options, there are some advantages to targeting the moment when the consumer has a defined clinical problem and is deciding whether having a procedure or another option is worth the cost. Few people pay attention to or retain information that is not relevant to their current health status—even if they realize it could one day be important.[105] In choosing the best approach to engage consumers in selecting among treatment options, it is important to realize that often patients are facing clinical consequences they have never experienced. Accordingly, they do not know how they would feel about different outcomes. For example, it may be difficult for a woman considering mastectomy versus lumpectomy for breast cancer to know how she would feel about losing her breast. An effective approach is to offer decisionmaking tools that include the stories of other people who have experienced the various potential outcomes because these narratives give patients greater context for their own circumstances.[106] In addition, patients generally are most able to interpret stories from "people like me," so it may be helpful for decision tools to include narratives from several patients of different backgrounds, even when discussing the same treatment option or clinical result. Expressing data in terms of risks rather than positive results—that is, citing a 15 percent mortality rate rather than an 85 percent survival rate—also seems to be helpful.[16]

A different approach may be more effective if the goal is to reduce underuse of preventive and chronic care services. In this case, frequent reminders may be helpful—for example, a note sent on a woman's birthday to remind her to get a mammogram.

Question 16. How do consumer financial incentives fit within the broader construct of consumers' engagement?

The consumerism movement in health care has generated substantial interest among purchasers of health care.[107] Proponents of this approach want to put consumers in charge of their care on the assumption that consumers can make the best choices for themselves—and they want consumers to share at least some component of the cost implications of those choices. Engaged consumers need tools to help them make good decisions. They need information about the quality of plans and providers and decisionmaking aids when choosing among treatment options.[108] If a goal of consumer engagement is to enhance the value of health care provided, then financial incentives may focus consumers' attention on the differences in value among the available options.[108]

A Social Marketing Perspective on Engaging Consumers in Value-Based Health Care Purchasing

The experiences of social marketers in recent campaigns to reduce lifestyle risks shed light on how consumer incentives should be designed and presented to consumers. Social marketing has been used to reduce the prevalence of smoking—the Truth Campaign;[109] increase compliance with seat belt laws—Click It or Ticket;[110] and change social norms regarding binge drinking on campus.[111] It developed as a way to apply the experience of marketing products and services to the needs of motivating behavioral changes with a societal benefit. The practice of both traditional marketing and social marketing suggests that people change behavior voluntarily when they perceive the new behavior to:

1. Offer benefits superior to those of the existing behavior (better).
2. Involve fewer barriers than the existing behavior (easier).
3. Be supported by people they value (popular with their role models).

It is easier to market a product or behavior that is actually superior to currently used products and behaviors than one that offers no superior benefit. In terms of consumer incentives in health care, this means that the consumer's response to incentives will be greater if responding clearly makes the overall health care experience better, easier, or more consistent with what other people they respect are doing.

How consumers decide whether or not to respond to an incentive. A fundamental reason for viewing consumer incentive programs through a social marketing lens is that people's perceptions of "better," "easier," and "popular" are governed as much by emotional decisionmaking as by objective fact. Perceptions do not always equal fact, but it is perceptions that govern behavior. In addition, behaviors compete; therefore, any new behavior must be judged by how its benefits and barriers compare to those of a person's current behavior.

In designing a consumer incentive, studies of perceptions of the benefits of current behaviors—what consumers are getting out of their current interactions with the health care system—are just as important as studies establishing the perceived benefits of new behaviors. Moreover, perceptions of what is better, easier, and more popular vary among individual people, both across behaviors and over time.

Finally, while a cash incentive may be attractive to one person, another person might believe easier access to services is more important. For that person, a financial incentive to enroll in a high quality provider network during open enrollment may not be as salient as considering whether to use quality-of-care information to choose a provider in an acute care situation. The perception of better, easier, and more popular is not stable but varies over time as new information and experience are accumulated.

Designing successful consumer incentive programs. Based on these observations, social marketers have adopted a variety of audience and market research tactics to achieve four important objectives:

Divide large populations into segments of people who share common perceptions of what is better, easier, and more popular for a particular behavior.

1. Prioritize and target those population segments that are most amenable to change and that also provide the greatest potential for social good.
2. Provide products, services, and communications that effectively compete with the perceptions of existing behavior in terms of what is better, easier, and more popular.
3. Monitor and adapt programs to meet changes in the target segment's perceptions.

In trying to identify population segments or to establish what incentives would appeal to consumers, single market research tactics—such as focus groups, surveys, observational studies, or intercept and in-depth interviews—are not as reliable when they are used alone as when they are used in combination. Experience suggests, for example, that the use of focus groups alone is insufficient to understand a large population segment's perceptions accurately.

Incentives are not one-size-fits-all, and some people may never try them on. A key point is that it is difficult to design incentives that will change the behavior of all consumers. In health care, there are some obvious potential targets. For instance, anyone with a chronic disease will naturally think about his or her interactions with the health care system on many occasions, and so they may already be aware of some of the issues that incentives are being used to address. In addition, they may be more willing to grapple with technical information—as long as it is not too technical—over time, and their repeated attention to the topic may improve their response when incentives are offered. This is fortunate, because a small percentage of all patients—most of them with chronic illness—account for a very large percentage of total care received, costs incurred, and quality deficiencies created.

Another implication of this observation is that many consumers can be ignored in designing consumer incentive programs. This may seem counterintuitive at first, but in health care, there is often a large segment of the population that is healthy and appropriately uses very few services. It may not matter whether this large segment of the population recognizes, understands, and responds to an incentive program because they have little impact on overall clinical or financial results. Instead, attention should be focused on those consumers who are more likely to respond and whose responses matter more.

Communicating with consumers about an incentive program. In communicating information, several basic principles are widely accepted, including the importance of keeping a message simple, repeating it often, stimulating conversation about it as an aid to adoption, and selecting channels and spokespersons who have high credibility with the audience. The recent report from the Institute of Medicine—Health Literacy: A Prescription to End the Confusion[112]—suggests that as many as 90 million Americans have trouble understanding written health information. This fact, coupled with expanding communication technologies, suggests that oral communication may have important advantages over written materials. Similarly, it has been shown that unplanned "communication noise"—such as news coverage, public debate, and demonstrations of polarizing behaviors—has a big effect on personal perceptions of public issues. For example, these types of communications had a major impact on parents' responses to educational campaigns about preventing Sudden Infant Death Syndrome. Indeed, the concept of

"confirmation bias"[113] suggests that whatever information people are given about subject matter for which they already have a strongly held belief is used to strengthen their existing prejudice.

It is often difficult to alter significantly people's perceptions about benefits of or barriers to a new behavior. The use of social norms—making a behavior appear to be popular—has been shown to compensate for this weakness; for example, social "norming" of binge drinking or waste recycling behavior. The pressure to do what others are doing, or what we think others are doing can be an important factor in the adoption of a behavior, even if the behavior is not clearly better or easier. This pressure can accelerate adoption by leading to a "tipping point" in social networks, where a behavior that previously was not common becomes widespread.[114]

Putting it all together. Table 4 offers some hypothetical examples of consumer population segments that might be amenable to incentives. Also described are some benefit design changes to the insurance product that would represent incentives— financial or non-financial—that might make receiving optimal care more attractive to the targeted consumers. In addition, we propose some communication strategies tailored to these segments. Although all of these are hypothetical programs—real programs should be based on careful assessment of what your beneficiaries want—they illustrate the general approach that social marketing research suggests should be adopted in designing incentive programs for consumers.

Table 4. Applying social marketing strategies to developing and marketing a consumer incentive program

Population segments in a large employer's beneficiary pool	Examples of subsets that may be amenable to change	Components of a program that can compete effectively with current behavior patterns	Illustrative strategies to target this subset
Retired beneficiaries	• Those with a chronic disease needing ongoing management. • Most common chronic disease among segment: cardiovascular disease. • Frequent concerns of segment: cost and lack of understanding of how to manage disease.	• Eliminate copayments for heart failure drugs. • Offer free nutrition education, including free to spouses or other family members who are primary food preparers. • Provide coupons for healthier foods.	• Feature a respected, retired local news anchor in public service announcements in print media. • Collaborate with unions on health fairs and cooking classes for older members with heart disease.

Table 4. Applying social marketing strategies (continued)

Young workers	• Those with a chronic disease needing ongoing management. • Most common chronic disease among segment: asthma. • Frequent concerns of segment: convenience, preventing disease from interfering with lifestyle.	• Reduce copayments for drugs that can be dosed less often. • Offer Web-based education about how to respond to disease flares. • Allow pre-prescription of the drugs needed when a flare occurs to allow the patient to start treatment without an office visit.	• Sponsor a "Living with Asthma" video contest in which people show how they manage their drug regimen. • Include as judges both doctors (for content) and patients (for humor). • Announce winners via a YouTube-like Web site.
Patients with symptoms	• Those who need surgical intervention. • Example: a weekend warrior tears a ligament and needs knee surgery. • Frequent concerns: "I know nothing about knee surgery." "Who will fix my knee right the first time?"	• Provide quality of care data on orthopedic surgeons, emphasizing such life issues as average time to resume walking, average time to return to work. • Offer incentives to use surgeons with better performance ratings.	• As this could happen to anyone, use multiple distribution channels—each more salient to a different subset of patients. • Do most of the education that comparative data are available before an event happens.

Special Populations

Question 17. Are certain types of consumers more responsive to financial incentives than others?

There has been some research into the characteristics that make a consumer likely to respond to the information provided in an incentive plan (Table 5). When the aim is to encourage the selection of high performance health plans or providers, an important issue is the extent to which the information about the performance of providers or plans offered through the incentive program is considered new information.[5] Studies have shown that sometimes consumers already

have an informal sense of health plans' or providers' performance, and that the addition of a report card merely confirms those impressions. In such a case, a new report card may have little impact on consumers' behavior.[4,5] One implication of this finding is that consumers who are new to a market, and have no prior information about providers or plans, may be particularly likely to respond to information—and also to incentives.[4,8,115]

For all the approaches to establishing incentives discussed in this Guide, a major factor determining whether people become engaged in, and effective managers of, their health care decisions is the extent to which they are "activated consumers." Hibbard and colleagues[116] have developed a tool to measure consumer activation—the general concept is that a consumer needs to have the confidence and knowledge to step into the decisionmaking role. Patients who are female, younger, and better educated are more likely to be activated consumers, but these readily measured variables account for relatively little of the variation in activation.[117] Rather, personal behaviors like asking questions and reading medication labels are better markers of an activated consumer.

Table 5. Characteristics that increase the likelihood that a consumer will respond to financial Incentives*

The consumer is likely to be particularly responsive to the financial aspects of the incentives (lower income individuals).
The consumer is in a new situation (new to town or new to the job), and the information is new.
The consumer is activated, a seeker of information: • Activated consumers in general: more likely to be female, younger, better educated. • Can also directly measure activation of an individual consumer.

*Assumes the incentive program includes provision of information about quality, with or without cost information.

Some patients may not want to be activated consumers. In fact, a national survey found that some people—although they are happy to discuss options with their physicians—actually do not want to be decision makers in their own health care.[118] Patients who are elderly or very sick—those who have the highest health care costs—are less likely to want to make their own decisions. In terms of using information for reducing disparities in health care delivery, it also was found that African American and Hispanic patients were less likely than others to prefer an active role in decisionmaking.[118] Consequently, consumer responses to incentives are likely to vary widely, both among people within a group and among groups. Special efforts will be needed to ensure that all patients benefit from performance measurement and incentive programs.

Question 18. What special accommodations, if any, should be made for lower income, underserved, or sicker consumers?

Socioeconomic factors and health status clearly have an impact on consumers' responses to incentives. This has been most carefully studied with respect to consumer incentives to use fewer or less expensive drugs. It has been shown that even among patients with chronic diseases, patients with a lower income and those who are sicker are more likely to stop medications because of cost.[57]

The impact of income and health status on the response to incentives can be mitigated through the design of the incentive program. If, as in the example of Aetna's HealthFund program, first-dollar coverage for certain necessary care is part of the benefit design—for example, people with diabetes in HealthFund get their diabetes medications at no cost—so then there is much less reason to be concerned about the negative impact of cost-sharing.[26]

Whatever incentive approach is used, it will be important to consider the possible impact of limited health literacy. Descriptions of the program should be sufficiently simple that consumers can understand them, even if their educational level is low. If this is not achieved, large segments of the population may fail to understand how the incentive functions and therefore cannot be expected to respond as desired.

A relatively novel approach to assisting patients with their health care and health care decisionmaking is the use of "patient navigators"—health care professionals who help patients navigate the complex health care system and the myriad potential barriers to accessing high quality care. Such barriers can range from a patient's mistrust of providers, to a patient's lack of child care, to cultural barriers.[119] An example of this approach is the National Cancer Institute's program to use patient navigators to address disparities in care affecting underserved populations.[120] The results of the studies funded under this program should be available soon and should help us understand when and how navigators are needed and what navigation assistance is most important.

Question 19. Is there a role for consumer financial incentives in an overarching disparities-reduction strategy?

There are at least two ways in which introducing incentive programs also could reduce disparities in health care delivery. The first is the simple act of disseminating information about the quality of providers' health care performance to populations negatively affected by disparities. Research has shown that, before providers' report cards are released, minority groups seem to have less access to information that defines which providers perform better based on the available, measurable quality indicators. Before the institution of public reporting of surgeon-specific rates of mortality from bypass surgery in New York State, there was no relationship between surgeons' mortality rates and the probability that an African American patient would choose a particular surgeon. Among white patients, however, those from ZIP codes associated with a high education level and a high or middle income level were more likely to choose a surgeon whose surgical mortality rate was low. After 1 year of public reporting, African

American patients from ZIP codes with a high education and a high or middle income level were also more likely to choose a surgeon who had a low mortality rate.[5]

The second way incentive programs could reduce disparities is that information about disparities can be included in the set of measurements collected and reported.[68] For example, patient experience (patient satisfaction) scores for hospitals could be reported by race and ethnicity. This would give providers an incentive to reduce disparities and provide culturally sensitive care, while helping minority-group consumers identify hospitals in which they would be most comfortable receiving care.

Evaluating a Consumer Financial Incentive Program

Question 20. What unintended consequences should we seek to avoid?

In addition to the hoped-for effects of an incentive program, purchasers will need to monitor, and try to minimize, unplanned negative consequences. Earlier, we described potential, unintended responses from consumers, especially skipping or delaying important treatment to avoid out-of-pocket costs. There also may be important unintended consequences in terms of providers' responses to tiering, which by definition includes public reporting of quality ratings, and the concern those reports may raise. Three unintended consequences to look for are: providers' selection of patients, "cherry picking" the healthiest patients; diversion of attention away from important aspects of care that are not measured in quality ratings; and widening gaps in performance among providers.

- **Selection of patients.** Providers may avoid treating sicker patients in the belief that adjustments made for severity of illness in quality ratings are not adequate and that caring for such patients will reduce their measured performance. Surveys done after New York instituted public reporting for coronary bypass surgery showed that two thirds of cardiac surgeons admitted to avoiding referrals of the most severely ill patients.[121] One approach that might reduce the probability that an incentive program would experience this problem would be to include, among the performance measures, some structural or process measures of quality that apply equally to all patients, regardless of their severity of illness. Risk adjustment of outcome measures like mortality rates will also minimize selection incentives, as long as providers believe the risk adjustment is adequate. In addition, including explicit reporting of case-mix data that show which providers are avoiding or accepting the more difficult cases—or providing differential rewards for meeting performance goals with more difficult patients—might increase providers' willingness to take on those cases. Another possibility would be to collect and report information about patients who change from one provider to another. A provider who is avoiding sicker patients would be identified by the high case-mix scores of patients leaving his practice.[69]
- **Diverting attention from aspects of care not included in quality ratings**. Incentive programs may focus providers' attention on the aspects of care for which there are quality performance measurements, to the detriment of performance in other areas.[122] This potential problem highlights the importance of selecting measures judiciously and of paying attention

to interrelationships among targeted and untargeted domains of performance. Using some broader measures of outcome, such as patients' experiences or decubitus ulcer (bed sore) rates and pain scores in hospitals, may mitigate this problem as well.

- **Widening performance gaps among providers.** This problem is most likely to occur if a program is designed to reward only providers that meet a high standard of performance or that are the highest ranked among peers. If this approach takes substantial resources away from other providers, their performance may actually get worse. The problem is of particular concern if it has an impact on safety-net providers and/or if there are not enough alternative options for those patients who receive care from providers with poor performance. If these adverse consequences are anticipated or noted, purchasers can adopt auxiliary programs to help safety-net providers improve their performance.

Question 21. How can we tell if consumer financial incentives are working?

Assessing the impact of a consumer incentive program is challenging because so many other factors simultaneously affect the quality and cost of patient care. Ideally, purchasers would implement the incentive program in one market or submarket and track the same performance measures on a set of comparison providers in another area. Some large employers, the Federal Centers for Medicare & Medicaid Services, and state Medicaid programs may be in a position to pilot consumer incentives in this way, but most purchasers cannot set up their programs as controlled trials. Therefore, special effort is needed to disentangle the effects of the program from other trends.

At a minimum, purchasers using strategies that target provider or plan choice should collect baseline data on the targeted performance measures before the program begins. This will be a critical part of program implementation because consumers and plans or providers need to learn about the measures and current level of performance. Baseline data about provider or plan market share also must be obtained. As the program is implemented, its effects can be evaluated in terms of the change in performance and market share for high and low performance providers, preferably relative either to a comparable but unaffected population or to the trend in performance and market share existing before the program's implementation. For programs targeting selection of treatment options or reducing health risks, the key baseline data relate primarily to consumers' choices among treatment options or health risk behaviors. Assessment of the program's impact, then, involves re-measuring the baseline variables to determine the magnitude of change achieved.

To understand the impact of any type of consumer financial incentive program, consumers and providers can be surveyed for feedback about unexpected problems with the measures used, including difficulties with access to care. Similarly, purchasers can track a set of performance indicators that are outside of the incentive program to better understand both negative and positive spillover effects from the program on untargeted clinical domains. Evaluation of the program also can include assessing not just average performance but also the effects of the program on different parts of the delivery system, including patients from low and high income levels and providers with high and low baseline performance ratings. The Agency for Healthcare Research and Quality (AHRQ) and the Commonwealth Fund have recently collaborated on

establishing priorities for research into the impact of consumer-oriented programs on clinical outcomes—proceedings are available at http://www.ahrq.gov/qual/qpayment.htm.

Purchasers have to decide how rigorous an evaluation needs to be in order to ascertain whether a program is working and how to improve it. To adhere strictly to scientific standards of evidence may be too costly and may produce evidence too late to be useful for decisionmaking—but erroneous conclusions that may be drawn from anecdotal or incomplete information may have substantial costs as well.

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