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Markets and Medicine

barriers to creating a "business case for quality"

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ABSTRACT Systematically improving the quality of medical care requires the creation and implementation of organized processes by health plans, hospitals, and physician groups. But to a considerable extent the medical market in the United States financially penalizes organizations that invest in improving quality, rather than rewarding them. This article explores the ways in which the market as presently constituted fails to reward investments in quality improvement and describes efforts newly underway to create a "business case for quality." It briefly suggests measures to that could be taken by public and private policymakers—by government as purchaser and regulator of medical care, and by large employers who in effect make policy through their health insurance purchasing decisions—to create a business case for quality.

UNDER FAVORABLE CONDITIONS, market competition leads to the creation of abundant, varied goods and services, and constantly puts pressure on producers to invent new ways to increase quality and decrease costs. Medical care, however, is different—or so it has been argued by theorists as prominent and as diverse as the sociologist Talcott Parsons (1964) and the Nobel Prize–win-

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ning economist Kenneth Arrow (1963). Market competition requires consumers who are adequately informed to evaluate the product they are buying, and who are sensitive to price as well as to quality. But health insurance makes consumers insensitive to both the quantity and the price of the medical services they receive. And until recently it was generally accepted that only physicians have the ability to evaluate the quality of care. Patients especially—but even corporate and government purchasers of health care—were thought to lack physicians' knowledge about what should best be done in any individual case. In the functionalist explanations of Parsons, Arrow, and their successors, these apparently inherent "market failures" in medical care—that is, the lack of favorable conditions for market competition—led society to substitute the institution of professionalism for that of the market. Individual patients and society as a whole trusted the proposition that because physicians were professionals, they would put patient interests first, recommend all necessary but no unnecessary services, and individually and collectively maintain the quality of care. In return, physicians were given respect, high incomes, and autonomy to control their own work.

By the early 1970s, however, it became obvious that reliance on physician professionalism was not enough. U.S. medical costs were rising much faster than the inflation rate in the economy as a whole, and there were shocking reports of extreme variability in medical quality (Wennberg and Gittelsohn 1973). As employers became increasingly unhappy with this situation, a *Fortune* magazine editorial declared: "The time has come for radical change . . . . The management of medical care has become too important to leave to doctors, who are, after all, not managers to begin with" (cited in Bergthold 1990). Some policy analysts and politicians called for increased government control of medical care, but opposition to such control had always been strong in the United States, and in any case the timing was bad: this was the beginning of an era of reliance on markets in areas of the economy that had previously been heavily regulated. Market proponents succeeded in convincing government and large corporate purchasers of health insurance that the market failures previously thought to be inherent in medical care could be remedied by fostering the growth of health maintenance organizations (HMOs) (Brown 1983). In the new medical care market, HMOs would compete for patients based on the quality and the cost of the services they would offer.

Creating such a market has proven to be more difficult than expected. HMO competition has centered on controlling costs through limiting the use of medical services and, especially, on growing large enough to have the leverage to negotiate high premiums from employers and high discounts from physicians and hospitals (Luft 1996). By the mid-1990s, the rise in medical care costs had slowed dramatically, but more recently the annual increase has again reached double digits, far exceeding the general rate of inflation. There is still a great deal of unexplained variation among physicians and among regions in the care that is provided (Welch et al. 1993), and substantial evidence that U.S. patients still

suffer from frequent overuse, underuse, and misuse of services by physicians (IOM 2001; Kohn, Corrigan, and Donaldson 2000; McGlynn and Brook 2001). Corporate and government (Medicare and Medicaid) purchasers of health insurance are frustrated with what they perceive as HMOs' failure to invest sufficiently in improving quality. Yet HMOs, physicians, and hospitals argue that the very purchasers who are complaining have consistently selected health plans and provider networks based primarily on their cost, and are unwilling to reward quality. Completing this round robin of blame, health plans and purchasers contend that physician groups and hospitals are always asking for more money, yet continue to operate their businesses inefficiently and refuse to implement processes such as computer-assisted physician order entry (CPOE) that have been proven to save lives (Casalino 2001).

This quality stalemate—or what Arnold Milstein, M.D., medical director for a purchasing coalition of large employers refers to as this "profound failure" (interview with the author, January 2001),—with its mutual recriminations and pointing of fingers, is not primarily the result of avaricious or incompetent individuals. It is an institutional problem. The U.S. medical market as presently constituted simply does not provide a strong business case for quality. Generally speaking, health plans, hospitals, and medical groups still cannot expect a return on investments they could make to improve quality (Coye 2001). In fact, many investments that would improve quality would financially penalize the organizations that make them.

In this essay, I will explain why this is so. Quality improvement requires that individuals and organizations have both the *incentive* to improve quality and the *capability* to do so. Neither is present, generally speaking, in U.S. health care, though scattered attempts are being made to create them (Becher and Chassin 2001; Bodenheimer 1999). I will begin by sketching the flow of dollars through the health care market, and then I will briefly trace the development of managed care: the idealistic hopes of the early proponents of HMOs; the concept of "managed competition" intended to refine these ideas and create a more perfect market; and the failure to create the institutions required for managed competition, which meant a failure to create a business case for quality. I will then describe the barriers to creating a business case, and briefly mention recent efforts to do so. Finally, I will suggest actions that government might take to help structure a market that would provide a business case for quality.

This essay is based on a review of the literature—including the trade literature, which is all-important for understanding what is happening in a rapidly changing industry like health care—and on over 800 interviews I have conducted during the past nine years with leaders of HMOs, hospitals, and physician groups, as well as with corporate and government purchasers of health care.

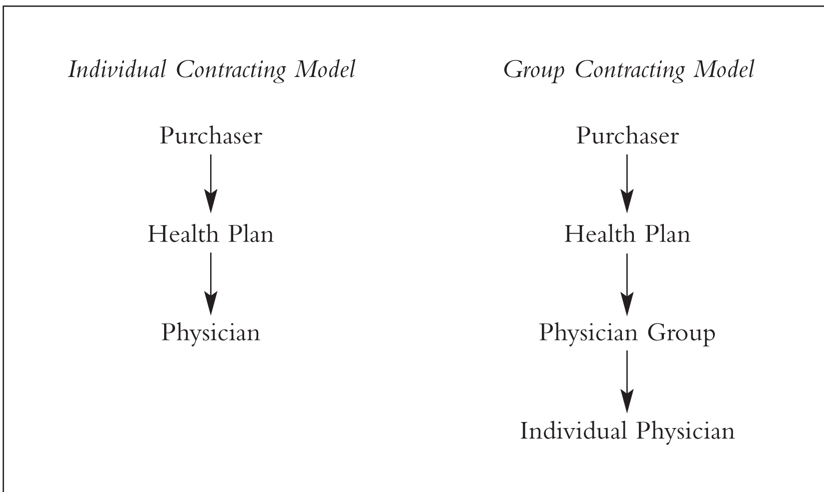

FIGURE 1

Two models of physician-health plan contracting.

"FOLLOW THE MONEY"

"Follow the money," Deep Throat advised the reporters Bernstein and Woodward as they investigated Watergate. Tracking the flow of dollars in U.S. medical care makes it possible to understand where incentives for quality could operate, and where capabilities for improving quality might be found. Purchasers—predominantly employers and the federal and state governments—pay health plans, which in turn contract with hospitals and physicians. Traditionally, plans paid hospitals and physicians a fee for each service they provided, with no questions asked, and no extra payment for higher quality (the individual contracting model in Figure 1). Physicians and hospitals had a strong incentive to provide as many services as possible, and no incentive to create capabilities to improve quality in any organized way. Nearly a century ago in *The Doctor's Dilemma*, George Bernard Shaw (1911) pointed out the obvious problem with the traditional fee-for-service approach: "that any sane nation, having observed that you could provide for the supply of bread by giving bakers a pecuniary interest in baking for you, should go on to give a surgeon a pecuniary interest in cutting off your leg, is enough to make one despair of political humanity."

THE DEVELOPMENT OF MANAGED CARE

Early HMOs and Market Forces

The early proponents of HMOs believed in group practice and in prepayment for care: "prepaid group practice" (Ellwood et al. 1971). They thought that paying an organization a fixed sum of money in advance—a capitation payment—to

care for a population of patients would eliminate the problem satirized by Shaw. They envisioned HMOs as prepaid group practices such as Kaiser Permanente: large organizations that closely integrated a health plan, hospitals, and physician group. They assumed that capitation would give HMOs strong incentives to control costs, and that HMOs would do so by emphasizing preventive services and working to keep patients healthy. Liberal proponents of prepaid care and conservative proponents of bringing the market to medicine collaborated to pass the federal HMO Act of 1973 (Falkson 1980). This Act and succeeding state bills removed legal barriers to HMOs, provided grants, loans, and technical assistance for creating HMOs, and mandated that employers with 25 or more employees offer an HMO option to their employees if an HMO existed in the area.

The expectations of the reformers—liberal and conservative—were not fulfilled. Creating new "Kaisers" turned out to be extremely difficult, and in any case few health plan or hospital executives or physicians had any desire to do so. Most HMOs did not find many moderate to large-sized group practices with which to contract (the group contracting model in Figure 1). Instead, they simply began contracting with individual physicians. To this day, that is the most common model of HMO-physician contracting. HMOs did indeed have strong incentives to control costs, but they focused on doing so by becoming large enough to negotiate discounts from physicians and hospitals (using the threat of exclusion from the HMO's provider network), by avoiding sick (and therefore expensive) patients, and by creating utilization management programs to reduce the provision of "medically unnecessary" services (Enthoven and Vorhaus 1997). HMOs invested little in improving quality, because this is a more difficult task, because quality measurements were rudimentary, because purchasers did not reward them for quality improvement, and because, contrary to the strong belief of the reformers, investing in improving quality often does not save money for the organization making the investment. In any case, information on quality of plans, hospitals, or physicians that would enable patients to make the cost-quality tradeoffs that are the fundamental basis of consumer choice in other markets was not available. Even if it had been, many patients did not have a choice of HMOs, because their employer offered only one plan.

Rethinking the Initial Model

By the 1980s a number of analysts—particularly Alain Enthoven—recognized that the mere creation of an HMO industry—a task at which the federal government had succeeded—was not enough to improve quality. They argued that only the creation of a well-functioning market in medical care would do so. Since individual patients lacked the financial power to influence HMOs and the sophistication to evaluate them, Enthoven's proposal for "managed competition" relied on the creation of private or public "sponsors," large purchasers who would reward HMOs for improving quality as well as for reducing costs, and which would oversee HMOs' benefit designs and enrollment procedures to pre-

vent them from "cherry-picking" the healthiest patients (Enthoven and Kronick 1989a, 1989b). As the technology developed to "risk adjust" capitation payments to HMOs—that is, to adjust them for the relative health of the population of patients that enrolled with a particular HMO—Enthoven expected that purchasers would begin using this payment methodology, thereby reducing HMOs' incentive to cherry-pick.

The Development of Managed Competition?

By the mid-1990s, HMOs enrolled one quarter of the U.S. population, but a strong backlash had emerged from both patients and physicians against HMOs' incentive to deny care, against restricting patients' choice to narrow networks of contracted physicians and hospitals, and against the administrative complexities and delays of utilization management. By 2000, HMOs' growth had stalled; in full retreat, they broadened provider networks and scaled back utilization management programs. As medical costs soared, it appeared that managed competition had failed. But it would be more accurate to say that it had never really been tried. Sponsors in the Enthovian sense were rare—most employers, small and even large, lacked the interest and the ability to serve as a sponsor. The Medicare program also has failed to act as a sponsor. It has no legislative mandate to pay health plans, hospitals, or physicians differentially based on quality scores, and no way to reward beneficiaries who select high-quality organizations (Berenson 2002). The result of the failure to create a well-functioning market in medical care—the failure to create managed competition—is that HMOs are still competing on their ability to be large enough to "manage discounts" rather than by effectively managing care.

BARRIERS TO CREATING A BUSINESS CASE FOR QUALITY

Lack of Quality Data

Until the past five years or so, little data on medical quality existed. The combined efforts of researchers, foundations, and the federal and state governments have resulted in a rapidly increasing volume of quality data (Eddy 1998). But limits to its usefulness remain. Patients have difficulty understanding and using the data that does exist, though a few purchasers are succeeding in presenting data in a patient-friendly format. Furthermore, patients are more interested in choosing their physician than their health plans, but most available data measures health plan performance, rather than that of physicians (Moore and Bopp 1999).

Capitation Alone Does Not Necessarily Reward Organizations for Investing in Quality

Leaders of health plans, hospitals, and physician groups—leaders who are responsible for assuring their organizations' solvency—are well aware of what

might be called the Woody Hayes theory of investment in improving quality. Woody Hayes was an Ohio State football coach famous, among other things, for his reluctance to make use of the forward pass. "When you throw the ball," he liked to say, "three things can happen—and two of them are bad." (For readers not familiar with football, a forward pass can be complete, incomplete, or intercepted, and only the first is good.) Similarly, when a health plan, physician group, or hospital invests in improving quality, three things can happen in terms of return on investment, and two of them are bad. Though it is sometimes true that "quality is cheaper," that is not always the case, and even when it is, the savings may not go to the organization that made the investment that improved the quality.

Such investments may improve quality and save money in the current year; improve quality and save money, but only years later; or improve quality, but never save money for anyone. In the traditional fee-for-service system, it made no financial sense at all for physicians or hospitals to invest in programs that would reduce patients' need for medical services. A physician group or hospital that spent money, for example, on programs aimed at reducing the number of physician and emergency room visits and of hospital admissions for asthma patients would simply be spending money to reduce the number of revenue-producing services it provided. Capitation would seem to solve this problem, but in fact does so only partially. Capitation will create a business case for quality for an organization to the extent that the reduction in costs for the organization is likely to exceed the investment needed to reduce them. In the asthma example, this probably will be the case if the program is a good one, and if savings from reduced use of the emergency room and hospital go largely to the physician group, not to the HMO. But this requires the group to be financially at risk (i.e., capitated) for emergency room and hospital services—a form of contracting that was never common in most areas of the United States, that has increasingly come under fire, and that is becoming even more uncommon. Otherwise the group invests the money and makes the effort, but the HMO reaps the reward.

Programs that improve quality and are likely to save money, but only in the distant future, are even more problematic. For example, a medical group (and/or HMO) that invests in a program to identify its diabetic patients, track whether each is receiving annual retinal exams, and contact them if they are not, may create savings by ultimately preventing severe diabetic retinopathy, which causes blindness. But these savings will not occur until five to 20 years in the future, by which time the patient is likely to be with another physician group and/or health plan. As the Chief Financial Officer of one health plan stated: "Why should I spend our money to save money for our competitors?" (interview with the author, July 2000). The same problem exists for many other potentially beneficial programs—for example, programs aimed at preventing cardiovascular disease through identifying and treating patients with high blood pressure and/or high cholesterol. Furthermore, some of these programs may improve quality but

not save money for anyone, even in the long run—the third possible outcome in the Woody Hayes trio.

For the same reasons, even large employers—to the extent that employees do not work for them forever—are not guaranteed financial returns on quality investments they might make. Even if the employer does expect to save money over the long term from investing in improving quality, these savings will not make the company look better in the short term, which is the important time frame for many chief executives.

Without Risk Adjustment, a Reputation for High Quality Can Be Costly

The paucity of information about quality available to patients, and the lack of risk adjustment in the payments made from purchasers to HMOs, and from HMOs to hospitals and physicians, also reduce the incentive to invest in improving quality. In most industries, gaining a reputation for quality gains an organization more buyers of its services and enables the organization to charge higher prices, both of which result in higher revenues. But because of the lack of risk adjustment, HMOs, hospitals, and physician groups are careful about the types of quality they project, which is why one does not see HMO billboards proclaiming how well an HMO takes care of diabetics. Most HMO advertising simply shows healthy families and states generalities like "Well. Well. Well!" The reality is actually more complicated, and more ugly. To the extent that they are paid fee-for-service, hospitals and physician groups do want to be perceived as being high quality providers of care for sick patients, such as diabetics, yet they don't want to invest in programs that would reduce these patients' use of services. To the extent that they are paid via capitation, hospitals and physician groups don't (other things being equal) want to be known as providing high quality diabetic care, but they do want to develop programs which, through improving quality, reduce diabetics' use of services, at least in the short run. Leaders in these organizations frequently comment on the difficulty of creating coherent organizational processes when dealing with these conflicting incentives.

Paucity of Medical Groups

Most physicians in the United States still practice in solo or very small group practices, and in most areas of the country, health plans accordingly contract primarily with physicians in such practices (the individual contracting model in Figure 1). Few larger groups exist. Why should this matter? Larger medical groups are better able to assume capitation risk, have more capability to create organized processes to increase quality, and are logical units of competition.

Because the law of large numbers reduces the impact of random variation—of the occasional unpredictable, unusually expensive patient—larger medical groups are much better able to assume financial risk, either directly through capitation, or indirectly through placing a certain percentage of compensation from

a health plan to the group at risk for its performance on containing costs and improving quality, than are individual physicians or small group practices.

Larger physician groups—from 10 to 30 physicians and up, depending on the specialty—have more resources to invest in management time and expertise and the information systems useful to create organized processes to improve quality. These processes include such things as maintaining a computerized registry of patients with particular diseases, using non-physician staff to help educate patients about their disease, identifying and contacting patients who should have preventive services, providing intensive nurse case management for patients with severe disease, and providing feedback to physicians about their performance.

Larger groups are also appropriate units of competition, though this is not yet widely recognized. Since all large health plans in an area tend to contract with the same physicians and hospitals, simply comparing quality data on health plans is of limited usefulness. It would be helpful to have a sense of the quality of one's physician. But—except for physicians like cardiac surgeons, who perform high volumes of a single procedure—problems with risk adjustment and with statistical significance severely limit the possibility of accurately measuring the performance of individual physicians. For example, Hofer et al. (1999), found that, even using the best risk-adjustment methods available, a physician would need to have over 100 diabetic patients for quality measurement scores on this disease to be reliable, and that a physician could dramatically improve his or her score simply by pruning the two diabetics with the highest blood sugars from the practice. Much more reliable and valid measurements can be obtained for the quality of care provided by a group of physicians.

Paucity of Sponsors

Proponents of managed competition believe that "sponsors" are necessary to structure competition so that it is truly over quality and efficiency, and not over growing to gain negotiating leverage, avoiding high-risk patients, and reducing provision of appropriate as well as inappropriate services. Sponsors should oversee benefit packages, so health plans can't use them to skim off the healthiest patients; risk-adjust payments to health plans, so they have no incentive to avoid sick patients; require that health plans risk-adjust payments to hospitals and physician groups, insofar as they are capitated; provide patients with comparative information on costs and quality at the plan, hospital, and physician group levels; and reward organizations that perform well.

Small employers are not capable of acting as sponsors. Small employer health insurance purchasing coalitions could do so, but collective action problems and state government regulations have inhibited their formation. A few very large employers—like General Motors—and coalitions of large employers—like the Buyers Health Care Action Group (BHCAG) and the Pacific Business Group on Health (PBGH)—are consciously acting as sponsors, but they remain exceptional. The Medicare program, which provides coverage for 39 million people in

the United States, could in theory be a potent sponsor, but it has so far failed to act as one, in part because it lacks legislative authority to pay health plans, hospitals, or physician groups differentially based on their performance.

ATTEMPTS TO CREATE A BUSINESS CASE FOR QUALITY

During the past few years, a variety have efforts have been initiated to remedy the "profound failure" of the lack of a business case for quality in U.S. health care. Since capitation alone—even when risk-adjusted—does not create a business case, purchasers are realizing that they must reward plans and providers *directly* for improving quality. There are three ways to do so.

Contract Only with High Quality Organizations

The National Committee for Quality Assurance (NCQA) is an independent, nonprofit organization that offers voluntary accreditation to health plans that meet certain basic standards. Most HMOs are currently accredited by the NCQA, but many employers—particularly small employers—still do not require that the HMOs with which they contract be NCQA-certified.

The Leapfrog Group, formed in November 2000 by a small group of Fortune 500 companies, currently includes 107 large employers who represent 32 million consumers. Employers who join Leapfrog pledge to make efforts to persuade health plans that they should persuade hospitals to implement CPOE and to staff intensive care units only with physicians certified in critical care medicine. Leapfrog also urges employers and health plans to steer patients to hospitals that perform high volumes of certain surgical procedures, because in general the more often a hospital does a procedure, the lower the complication and mortality rates.

Reward High Quality Organizations with More Patients

The NCQA publishes an annual report card on HMOs—available on its web site—which offers ratings of individual HMOs' performance on a wide variety of measures. To date, this information has not been used a great deal by employers, and is used even less by consumers. Some purchaser coalitions (notably PBGH and BHCAG) and a few health plans (e.g., PacifiCare of California) construct their own quality ratings of physician groups and make these available, in easily understandable form, to employees. Rewarding high quality organizations with more patients remains problematic, however, because in the absence of risk adjustment, health plans and physician groups are cautious about gaining a reputation for high quality in the care of patients with particular diseases.

Pay for Performance

Paying health plans, hospitals, or physician groups directly for improving quality has been the least-used method of creating a business case for quality. Though

simple conceptually, paying directly for higher quality is difficult. When real dollars are tied to quality measurements, all players have been reluctant to move ahead until these measurements are proven to be highly reliable and valid—a difficult task, which must include, among other things, risk adjustment. (When a physician, physician group, or hospital scores poorly on a quality measurement, the usual claim is that "my patients are sicker.")[1] Compounding the problem, most physicians work in groups so small that it is difficult to get statistically reliable results on which to base rewards. In any case, given the underdeveloped information systems of most physicians, hospitals, and even health plans, the efforts required to collect data can be overwhelming.

There have been a few pioneering efforts to directly reward organizations that score well on quality measurements. General Motors employees who choose high scoring plans pay lower health insurance premiums. In 1998, BHCAG began paying cash awards of up to $100,000 to the top-ranking care systems with which it contracted (Christianson and Feldman 2002). For the past few years, PBGH has required contracting HMOs to place 2 percent of their premium at risk for their performance. Empire Blue Cross of New York State has just announced a plan to pay a bonus of up to 4 percent to hospitals that meet two Leapfrog standards: CPOE, and staffing intensive care units with physicians who are certified in critical care medicine. Blue Cross of California, Blue Shield of California, Harvard Pilgrim Health Care, Anthem Health, and a few other HMOs have recently announced plans to pay small bonuses to physicians who score well on measures of preventive care and/or patient satisfaction. Aetna has long had a similar program. Medicare is initiating a program to pay directly for quality in a few experimental "demonstration sites."

A major barrier to paying for performance is that purchasers are unwilling to make additional money available for such rewards, while hospitals and physicians, arguing that payment rates are already inadequate, are unwilling to put money that they are already receiving at risk for their performance on quality measurements. The present double-digit increases in health insurance premiums are having the unintended consequence of making pay-for-performance more possible. Some health plans, with strong encouragement from large employers, have begun taking a small portion of these increases and using it to reward hospitals and physician groups that improve quality. In California, collaboration between large physician groups, health plans, and employers through the Integrated Healthcare Association has resulted in a plan to put 2 percent of premium increases for capitated products into a quality fund each year for the next three years. This fund, which would amount to over $100 million over the three years,

[1]Some physicians and policy analysts also worry that if providers are rewarded for their scores on quality measures, they will focus attention on these at the expense of other, perhaps equally important, areas of quality, including those that are hard to measure (Casalino 1999).

TABLE 1 REQUIREMENTS FOR CREATING A BUSINESS CASE FOR QUALITY IN U.S. MEDICAL CARE

Quality data
Quality data presented in a way that consumers find useful
Risk adjustment
Payment methods that reward long-term investments in quality improvement
Physician understanding of population-based versus individual-based care
Adequate information systems at the health plan, hospital, and physician-level Sponsors
Medical groups with adequate financial and management resources

would be used to provide bonuses for physician groups that score well on a variety of quality measures.

CONCLUSION

It has been said that it was not until well into the 20th century that the average patient, encountering the average physician, had more than a 50-50 chance of being helped. We may be well into the 21st century before the average patient has more than a 50-50 chance of seeing a physician who has a business case for improving quality. While markets at their best lead to quality improvement, creating a market that functions well is difficult. Table 1 summarizes some of the things that will most likely be necessary for the U.S. health care market to lead to improved quality.

Methods for measuring quality, for presenting quality data to consumers, and for risk adjustment have improved a great deal during the past decade, and, with continued interest from private and public research funding sources, should continue to do so. As these methods improve, so will methods for rewarding organizations for investing in improving the quality of care. It also seems likely that newer generations of physicians will have a better understanding of the importance of thinking of quality in terms of what a group of doctors can do for a population of patients, and not simply in terms of what an individual physician does for whichever individual patients happen to present themselves.

But the lack of information systems, sponsors, and medical groups may prove to be more difficult problems. All three will likely be needed in order to have the kind of well-functioning market that provides a business case for quality. It may be that some degree of government involvement will be necessary to catalyze the creation of such a market. For example, most health plans, hospitals, and physician groups are under severe financial duress. At current rates of investment, it will be many years—and many lives unnecessarily lost—before information

systems (like CPOE) in medical care even approach what we are technically capable of doing right now. During the 1950s, the federal Hill-Burton program helped fund a successful upgrading and expansion of the U.S. hospital system. Perhaps a program of grants and/or loans—a kind of Hill-Burton for information systems—should be considered.

Federal and/or state governments might also try to foster the creation of private and/or quasi-public sponsors. There are many reasons for the paucity of such sponsors, not least of which are collective action problems—a form of "market failure," as it is called by economists (Olson 1971). The medical market, left to itself, will undersupply sponsors. While any individual employer—small or large—might benefit from being part of a purchasing coalition, the costs of creating and maintaining the coalition will fall on the most involved employers, while the others can free ride on their efforts. Under these circumstances, few effective coalitions are created. As an ancient proverb puts it: "the garden that belongs to everyone is seldom swept." Analogous collective action problems also lead to an undersupply of moderate to large-sized medical groups.

Finally, Medicare is the largest single purchaser of health care in the United States. If the Medicare program were changed—a change that would require legislation—so that Medicare could become an active sponsor, the creation of a medical market which provides a strong business case for quality would be both more likely and more rapid.

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