Pay for Performance in Health Care: Methods and Approaches

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CHAPTER 3

Theoretical Perspectives on Pay for Performance

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The widespread enthusiasm for pay for performance (P4P) in recent years reflects an underlying theory that we can improve the quality and efficiency of medical care by focusing on economic incentives. By paying more for evidence-based preventive care services and denying payment for preventable complications, to cite two examples, we can provide financial incentives that we expect will encourage physicians and health care provider organizations to improve the quality of care. Similarly, by paying bonuses for efficiency improvements, such as reducing hospital admissions per 1,000 chronic disease patients, we expect to motivate reductions in utilization of care and overall costs. However, the documented impacts of P4P to date have not lived up to expectations.

This chapter examines theoretical perspectives from economics, sociology, psychology, and organization theory to broaden our understanding of the range of factors affecting health care quality and cost outcomes and better understand why the focus of P4P on economic incentives has had limited impact. These theoretical perspectives describe the ways in which other factors—such as the social norms of professionalism among physicians, the range of motivational factors affecting physician behavior, and the organizational settings in which clinicians practice—affect the influence of economic incentives on the outcomes of P4P programs.

For example, we can view basic concepts in sociology and economics as presenting contrasting theories of physician behavior (Gray, 2004). The sociological perspective emphasizes physicians' extensive training and socialization, and the way in which that context leads them to provide good-quality care except in cases in which negative financial incentives disrupt their efforts. The economic perspective argues that financial rewards are important in motivating physicians (and workers of all types), and thus we need to implement financial incentives that focus specifically on quality of care. This approach will ensure that physicians do not neglect quality in favor of other

goals—such as the volume of care provided—that may be more remunerative in some situations. In reality, both perspectives have merit, so we should view neither in isolation. P4P programs, however, may need to emphasize either approach, depending on the range of policy, technology, organizational, motivational, and patient factors present in a particular medical practice setting.

The high levels of complexity in today's health care sector mean that focusing solely on economic incentives may have unintended consequences. For example, despite the recent advances in medical technology, physicians still must often make high-stakes diagnoses and treatment decisions under conditions of uncertainty and ambiguity (Town et al., 2004). Scientific data from randomized controlled trials, systematic evidence reviews, and other products of evidence-based medicine may be available for only a minority of a physician's patients. Patients with multiple chronic diseases may present clinical challenges for which few scientific guidelines are available; the full range of interactions between different diseases and treatments may be unknown. Patients' actions, which physicians cannot always anticipate, can also enhance or hinder the effects of treatments. Physicians may practice in multiple settings and treat patients covered by a range of different health insurance plans. Moreover, the legal system impinges on health professionals and provider organizations through the threat of malpractice suits and myriad regulatory requirements. As a result, physicians and provider organizations may respond in unexpected ways to the economic incentives of P4P programs because the incentives are operating in the context of these other forces that are also at work at the same time in the health sector.

The next section of this chapter reviews theoretical perspectives from economics, sociology, psychology, and organization theory, with a focus on the ways in which they all can have implications for P4P. The final section of the chapter discusses the need for a multidisciplinary, composite model that includes the broad range of factors affecting the behavior of physicians and health care organizations. It also reviews how policy makers can use a broader model of that type to improve the design of P4P programs and increase their impact on health care outcomes.

Theoretical Perspectives on Health Care

Economics

Market mechanisms that make economic incentives effective for price setting and cost-control in other industries often weaken or fail the health care sector for two main reasons: (1) insurance payment for medical services, and (2) lack of consumer knowledge regarding the desired attributes of medical care. Health insurance lowers the net price of care to consumers, resulting in higher utilization at lower marginal value. Economists term this tendency the "moral hazard": patients who have health insurance often consume more health care than they would otherwise (and raise the overall costs of health care), because they are not paying out of their own pockets. Consumers may also overvalue or undervalue a broad array of medical services by lacking knowledge regarding exactly how these services contribute to quality of care in terms of accurately diagnosing and treating their diseases and symptoms. As a result, consumers delegate most medical diagnosis and treatment decisions to professional experts, most prominently physicians.

Arrow (1963), in his foundational article on health economics, recognized the asymmetry of information between patients and physicians. A decade later, economists began developing new theories of the value of information—for example, in analysis of used car "lemons"—that provided analytic approaches to address the problem of physicians as imperfect "agents" for their patients (Akerlof, 1970). These new approaches focus on "agency theory," which examines optimal contracts and payment systems between principals (patients, insurers) and agents (physicians) under conditions of uncertainty and information asymmetry (Christianson et al., 2006; Eisenhardt, 1989; Golden & Sloan, 2008; Robinson, 2001; Town et al., 2004).

Agents can take advantage of information asymmetry to increase earnings, reduce work hours, or increase their prestige with colleagues. Physicians may spend less time ensuring that they correctly diagnose one patient's condition so that they can see other patients and gain additional revenue. After making the diagnosis, physicians may choose a more expensive course of treatment to increase their own billings or those of colleagues whom they expect to reciprocate with future referrals. Physicians can also earn supplemental income if they hold equity ownership in facilities used to test or treat patients (e.g., ambulatory surgery centers, laboratories, imaging centers). Clinical uncertainty can exacerbate this situation. When clinical guidelines

do not provide specific guidance on treatment protocols, as is often the case, physicians may have more latitude regarding ordering tests and treatments.

All these factors could compromise quality of care in subtle, hard-to-measure ways. As in most principal-agent problems, the principals have difficulty monitoring the quality of the work the agents provide. Even if it were technically feasible, the cost of monitoring quality may be prohibitive for individual patients. As a result, health care consumers cannot make optimal purchasing decisions, unlike those in other sectors of the economy, where quality and price information is more evenly distributed between consumers and producers.

To make matters worse, most physicians in the United States are reimbursed on a fee-for-service (FFS) basis, which the business sector calls "piece-rate" compensation. Economists generally view piece-rate compensation as a poor solution to the principal-agent problem in that it encourages exploitation of information asymmetries (Robinson, 2001). Piece-rate compensation gives physicians financial incentives to increase the quantity of services provided at the expense of quality when the deficiencies in quality are difficult to detect.

P4P is intended to address these principal-agent problems in health care in two ways: (1) by providing objective quality measures and (2) by linking payment to improvements in performance. First, evidence reviews or physician consensus panels develop clinical guidelines that are used to develop quality measures. National groups such as the National Committee for Quality Assurance and the National Quality Forum oversee development and dissemination of these measures. Patients and their insurers can rely on these organizations to help them in their roles as principals, by reducing their information asymmetries with physicians and hospitals. Second, by linking some portion of physician or hospital payment to improvements in these objective measures of quality performance, P4P provides economic incentives for improving quality rather than for increasing the quantity of services provided, as is the case under FFS.

The P4P economic incentives for improving quality can be effective, but countervailing economic incentives are often strong and the design of P4P programs sometimes underestimates them. Two large and countervailing economic factors are the much larger size of FFS reimbursement compared with P4P payments and the threat of malpractice lawsuits that encourages the practice of defensive medicine. Both of these forces provide strong economic incentives to increase use of health care services without necessarily focusing

on those that increase quality of care. This could be one explanation for the limited impact of P4P programs, when examining only other economic factors, even before considering the sociological, psychological, and organizational factors discussed later in this chapter.

The business sector's experience with P4P provides additional perspectives regarding the economic incentives often promoted in the health policy debate over P4P. The business sector uses a different terminology for P4P, calling it "variable pay," a category that includes piece-rate payment, merit-based pay, bonuses, profit-sharing plans, gainsharing, and employee stock ownership plans (Robbins & Judge, 2009). In the business sector, the goal is to move away from basing pay increases on time on the job or seniority, as has been traditional in some industries, and instead shifting to a system in which at least a portion of an employee's pay is based on an individual or organizational measure of performance. However, contrary to many health sector policy makers' impression of the success of P4P economic incentives in the business sector, research has shown only mixed results from variable pay systems in business settings.

P4P programs in health care are similar to the business sector model known as merit-based pay, in which performance appraisal ratings drive pay increases. Research in business organizations has shown that if merit pay systems are well designed, and if employees perceive a strong relationship between performance and rewards, they can succeed in improving employees' motivation (Robbins & Judge, 2009).

However, business researchers have also found that, in practice, merit pay systems have at least five types of limitations (Robbins & Judge, 2009; Packwood, 2008). First, the merit pay is only as valid as the performance ratings on which it is based, and both workers and managers often perceive the ratings as problematic. For example, the impact of merit pay on the volume of production may be larger because it is easier to measure volume than quality in most industries. Second, the amounts available for pay raises may fluctuate based on economic conditions unrelated to an employee's performance, so good performance may sometimes result only in small rewards. Third, organized groups of workers, such as unions, may resist attempts to institute individual rewards for individual performance that may undermine group cohesion. Fourth, individual rewards provide disincentives for cooperation and collaboration among employees. Fifth, both employees and managers express frustration about the time and effort required for the performance review

process, which often fails to achieve genuine pay for performance. Similar concerns have also emerged in regard to health-sector P4P efforts.

Rynes and colleagues (2005) reviewed the management literature and found little evidence regarding the impact of merit pay systems, which they found surprising in the context of their widespread use as P4P programs in the business sector. Available studies they reviewed showed mixed impacts of merit pay, some positive and some null. They noted that the difficulties of clearly linking pay to performance and challenges in developing credible measures of performance impeded rigorous research on this topic. Jenkins and colleagues (1998) conducted a meta-analysis of 39 studies to examine the quantitative impact of business-sector P4P programs. They found a positive relationship between financial incentives and performance quantity, but no relationship with performance quality. Packwood (2008) found that no available studies provide conclusive proof of positive impacts of variable pay plans on business results.

In sum, although economic incentives are important, they may not be sufficient alone to ensure that P4P programs are effective, in either the health sector or the business sector. Policy makers must also consider additional factors and incorporate them into the design of health care P4P programs.

Sociology

Medical education provides one of the most intensive technical training and professional socialization processes of any occupation (Town et al., 2004). The technical training is long, including 4 years of medical school and 3 or more years of residency. The training is also rigorous: extensive memorization of anatomy and physiology; detailed practice in analytical reasoning for diagnosis and treatment; extensive review of the range of available diagnostic tests, therapeutic procedures, and pharmaceutical treatments; detailed practice in the use of technologies; and training for the emotional detachment and confidence needed to conduct often painful and invasive procedures on patients. The socialization that accompanies this technical training in medicine has several common features:

- commitment to taking strong personal responsibility for patients;
- high degree of dependability when working in medical teams;
- confidence in knowledge and skills as a medical professional;
- commitment to patient care decisions based on scientific judgment when possible, but under uncertainty when necessary;

- emotional detachment from processes and outcomes;
- strong peer orientation toward physician colleagues;
- rigid lines of authority and decision hierarchies; and
- commitment to long, hard hours of work in a high-technology and high-risk environment.

Medical training teaches physicians to take personal responsibility for their patients and to be highly dependable. In the operating room and at the bedside, physicians must exude confidence in their ability to diagnose and recommend when and how to treat. Whatever doubts they may have must be quickly cleared up (e.g., with another test) or sublimated when interacting with patients and families. Because physicians may make life and death decisions, medical training teaches them the limits of their knowledge and the truism that some patients simply respond differently from everyone else to treatment. They often seek out specialized expertise from their physician colleagues who may be able to help avert mistakes and who understand these issues as few others do. At the same time, physicians learn that they often need to proceed with a treatment in situations of clinical uncertainty, which occur much more frequently than the general public realizes. This leads to an emotional detachment from their patients that is necessary in order to be able to return to work the next hour or the next day after an experience of failure (Kirk, 2007).

Since the 1920s, medicine has met all of the sociological characteristics of a profession, in being a service occupation supported by prolonged training and specialized knowledge that determines its own standards of education and training. It successfully recruits the best and the brightest students, controls its own licensing boards, influences legislation to advance its own interests, and, at least historically, has remained mostly free of formal lay evaluation and control (Cockerham, 2007). Ultimately, clinicians become different from most other people in ways that are key to understanding how best to reward them (or not) for their services under P4P.

In their training, physicians become accustomed to hierarchical arrangements as they move from student to resident to attending physician. In addition, given the downside risks from incompetence, merit and scientific qualifications necessarily play a prominent role in career progression. Consequently, physicians often have greater difficulty than nonphysicians in accepting direction from those with less training in their field (e.g., health insurance company staff sending them P4P quality performance reports with

highlighted areas for improvement or hospital business managers pressuring them to change practice patterns to reduce costs). They will not "suffer fools gladly" if a P4P approach is inconsistent with their perception of what constitutes a necessary and effective course of care.

At the same time, in recent years the cumulative effect of written guidelines, second opinion requirements, documentation requirements, and regulatory intrusions into their practice has touched off a process in medicine that sociologists term "deprofessionalization" (Cockerham, 2007). Medical work, no longer the sole purview of physicians, is now under greater scrutiny by patients, health care provider organizations, health insurance organizations, business corporations, and government agencies. Health care purchasers want to know more about what exactly they are getting for their money. Ironically, medicine's technical capability to diagnose and treat diseases has steadily been increasing during this time, over the past several decades, just as the medical profession's autonomy has been diminishing.

Studies have found that physicians often have difficulty living up to the public tenets of medical professionalism, and this has eroded their public support. Core tenets such as always providing the highest quality care for patients, putting patients' interests ahead of the physician's own career or financial interests, and commitment to science, are ideals—but hard to fulfill in the realities of practice with heavy workloads and uncertain reimbursement (Wynia, 2009). For example, physicians are often unwilling to criticize one another in public for fear of reprisals and in recognition of common interests (Cockerham, 2007). In a physician survey of attitudes and behaviors toward professionalism, Campbell et al. (2007) found that

- 85 percent believed that physicians should disclose all medical errors to affected patients,
- 77 percent believed physicians should undergo periodic recertification,
- 46 percent had personal knowledge of one or more serious medical errors and did not report them to the hospital or other relevant authorities in every case,
- 45 percent had encountered impaired or incompetent colleagues and had not reported them,
- 36 percent would order an unneeded magnetic resonance imaging (MRI) scan for low back pain if a patient requested it,
- 31 percent were not accepting uninsured patients who were unable to pay, and

- 24 percent would refer patients to an imaging facility in which they had an investment and would not inform the patient of that investment.

These results indicate that the ethical and professional standards highlighted, and perhaps idealized, during a physician's professional training have been difficult to sustain.

P4P can cut two ways in response to physicians' concerns about deprofessionalization. If external government agencies or insurance organizations impose P4P, physicians may perceive the move as contributing to deprofessionalization. On the other hand, if physician groups themselves organize P4P programs, then this approach could reinforce physicians' leadership in quality of care measurement. It could also provide additional payment for services that often go unreimbursed under FFS, such as case management and patient and family education, thereby helping physicians to improve quality of care (Wynia, 2009). In these ways, the influence of concerns regarding professionalism on physicians' responses to the economic incentives of P4P could be either positive or negative, and they could enhance or inhibit the impact of P4P.

Psychology

We can also apply psychological theories and concepts to understand physician behavior for analysis and design of P4P programs. Herzberg's two-factor theory postulates two types of factors that affect workers' motivation in many industries and organizational settings: (1) motivators that encourage productive work and (2) dissatisfiers (Herzberg, 1966; Shortell & Kaluzny, 2006). Golden and Sloan (2008) similarly categorized motivators as extrinsic and intrinsic. Table 3-1 includes examples of extrinsic and intrinsic motivators for physicians.

Table 3-1. Extrinsic and intrinsic work motivators for physicians

Extrinsic Motivators	Intrinsic Motivators
Money, fringe benefits, perquisites (discretionary fringe benefits)	Accomplishment of difficult tasks, correct diagnoses, effective treatments
Workload, working conditions	Learning new skills
Avoiding paperwork, bureaucracy	Link between effort and successful outcomes
Extent and nature of job hierarchy	Autonomy, flexibility
Recognition, status	Collegial relationships with peers
Patients' appreciation	Contributing to the community and the profession

Motivators external to the person include pay, fringe benefits, vacation time, large offices with windows, reserved parking spaces, and first-class travel. Job conditions such as burdensome workloads and poor working conditions are external dissatisfiers that discourage productivity. Most people rebel against paperwork that takes time away from accomplishing tasks and against illogical bureaucracy that frustrates performance, autonomy, and flexibility. By contrast, professionals generally accept a supervisory hierarchy in the workplace if it is based on objective criteria (e.g., competence, experience, education). Most people appreciate external recognition or praise by their supervisors, peers, and clients, especially if it leads to enhanced status, higher pay, and more control over decisions affecting their work and performance.

Intrinsic, self-motivating factors include a person's satisfaction in accomplishing a challenging task for its own sake and the satisfaction derived from learning new skills or knowledge. The closer one's own effort can link to success, the more internal motivation workers may have to make the extra effort. Most people prefer more control over their work environment and support staff, which is closely associated with power over production activities. Most professionals prefer a collegial work environment, interacting with peers in solving problems. The following discussion reviews the ways in which physicians often react to extrinsic and intrinsic motivators.

Money is one of the main motivators for most people. When physicians rank their priorities, money is in the top five, although not always number one (Shortell & Kaluzny, 2006). Physicians make an enormous investment of time and money in their training, and they usually view this as requiring financial returns from high salaries or private-practice income. Increasingly, this encourages medical students and residents to pursue training in higher-paying medical and surgical specialties. As a result, we can expect the economic incentives of P4P to have a significant influence on physician behavior that may encourage improvements in quality of care (if other factors also support that goal).

Heavy workloads and time pressures, however, can negatively affect physicians' ability and willingness to adhere to clinical guidelines and quality measures based on those guidelines (Mechanic, 2008). Long lists of guidelines for good medical practice, each reasonable on its own, often overwhelm physicians. Primary care physicians often view patient visit times as being unduly shortened and expected patient workloads as too high; they increasingly experience high levels of stress and burnout. As a result, their

willingness to respond to quality and cost-control measures included in P4P programs can sometimes be limited.

Most physicians value recognition and praise from their peers and patients. The profession places much emphasis on local community and national recognition that comes through research publications, conference presentations, medical professional society awards, government testimony, and the media. Recognition can result from developing novel clinical procedures, conducting groundbreaking research studies, spearheading new quality improvement innovations, or leading health policy making efforts. P4P programs that include recognition for quality-improvement accomplishments will likely achieve better support from physicians.

Intrinsic rewards are another powerful motivator for the medical profession. Physicians train intensively to perform complex tasks that require them to marshal other doctors, nurses, technicians, drugs, and devices in the care of both routine and potentially life-threatening problems. Completing these tasks successfully, caring for patients often over many years, and sometimes saving lives or curing diseases, provides psychological rewards unmatched in most other occupations.

Wynia (2009) reviewed evidence that indicates financial incentives can damage intrinsic motivation. He noted that the work of physicians, with its cognitive sophistication, open-ended thinking, and professional ethos, is exactly the type for which financial rewards may have negative impacts on intrinsic motivation. He warned that P4P could have unintended negative effects on quality (contrary to the economic perspective, which holds that explicit payment should improve quality) if not carefully designed to avoid this pitfall. For example, P4P programs may have fewer negative impacts on intrinsic motivation if (1) rewards focus on the group or team level instead of the individual physician, (2) physicians are able to retain a sense of professional control through designing the ways certain types of atypical patients can be excluded from quality measurement, and (3) physicians are involved in the efforts toward developing the quality measures themselves.

Physicians highly prize the acquisition of new skills in a rapidly changing technological environment. For the primary care and medical specialist, the choice of new drugs provides increasing challenges and rewards. For the surgical specialist, endoscopic, robotic, and minimally invasive procedures offer similar challenges and rewards. Rapid change in medical technologies brings with it rapid skill obsolescence, however. Maintaining competence is

complicated by the need to keep abreast of the rapidly growing body of medical research. The number of journal articles reporting on randomized clinical trials alone reached 30,000 in 2005 (Mechanic, 2008). Risk of mistakes and professional embarrassment or failure rises with the rate of skill obsolescence, undermining physician confidence and adding to the overall time pressures of the medical profession. P4P can support acquisition of new skills and use of new technologies by updating quality measures frequently to incorporate new clinical guidelines and new types of treatments.

Organization Theory

Economic agency theory focuses on the simple example of an individual physician as the agent treating a single patient as the principal. However, the individual physician may not only be an agent for the patient, but also a principal for his or her physician group. The physician group, in turn, may be negotiating fees with health insurance organizations as an agent on behalf of all physicians in the group as principals. The multidisciplinary teams of primary care physicians, specialist physicians, surgeons, nurses, technicians, and other health care professionals that are usually needed to provide health care further complicate the principal-agent relationships.

Because P4P programs commonly apply to provider organizations such as physician groups, hospitals, or integrated delivery systems (IDSs)—and not to individual physicians—we can expect organizational structures, processes, and cultures to affect the impact of P4P in both positive and negative ways. Indeed, organizational theorists often view improving quality of care as an organizational problem (Kimberly & Minvielle, 2003). Four strands of organization theory can shed light on potential P4P program impacts: (1) ownership, (2) institutional layers, (3) cultures, and (4) change management and quality improvement.

Ownership. Economic studies of payment effects on organizations often assume that the affected individuals are employees or owners but not both (Town et al., 2004). However, physician group practices are better characterized as worker-owned firms (Robinson, 2001). Hospitals and integrated delivery systems are often nonprofit organizations, with employees and oversight from community-based boards of directors, but not owners who have a claim on profits. Salaried physicians employed in large provider organizations and sole proprietorship in solo physician practices represent two ends of a spectrum of organizational complexity. In practice, clinicians experience a wide array of middle-ground ownership approaches; one commonly found in physician

groups bases physician compensation on a mix of salary and productivity standards based on relative value units such as weighted numbers of visits provided per month. Notably, this approach can accommodate P4P fairly easily by adding either groupwide or individual physician quality-of-care measures to the productivity measures for determining physician compensation.

Ownership can include partnerships, stock options, and numerous other arrangements that tie pay to financial performance in varying ways. Because physician-owners share in the financial returns from capital investments in buildings and equipment, they naturally respond to payment systems in ways different from physicians who are strictly on salary, with no vested interest in recommending more tests, procedures, or hospital admissions. Benefits of worker-ownership include an increased willingness to take risks that may translate into greater clinical and organizational elasticity in response to P4P incentives. A downside of worker-ownership can be an excessive focus on maximizing revenue.

Institutional layers. Health care is unusual in that lower levels of institutions are often not completely part of higher ones. In this situation, we can view health care organizations as an "incompletely contained hierarchical nest" (Town et al., 2004, p. 104S). Patients often see more than one physician. Physicians, in turn, often work in more than one clinical group or department. Physician groups usually contract with multiple health insurance organizations. A practicing physician can work and interact with at least five different organizational layers: (1) other physicians, (2) multispecialty groups, (3) multigroup provider organizations (e.g., independent practice associations, physician hospital organizations, IDSs), (4) multiple health insurance plans, and (5) varying consumer health plan choices within insurance plans (e.g., health maintenance organizations, preferred provider organizations, point of service plans) (Landon et al., 1998).

Moreover, each of these five layers may implement programs or systems aimed at influencing medical practice and health care quality in different ways, such as selecting or profiling physicians, promoting or discouraging particular types of services, implementing incentives though P4P, and implementing constraints through utilization review or limited investment in medical technologies. All of the influence strategies need to be aligned with P4P programs if P4P incentives are to be effective. If the other strategies are working at cross purposes, then the impact of P4P will likely be blunted. A case in point might be conducting a stringent review of "unnecessary"

services (such as preventable hospital admissions) and making some P4P bonus payments based on that measure, on the one hand, while at the same time paying most of physicians' compensation according to their revenue productivity in terms of FFS billings or relative value units, on the other hand.

Still unclear is how physician groups respond to multiple, sometimes conflicting, payment arrangements that can range from FFS to capitation. Physicians in a group may see some patients with health insurance plans that reimburse using FFS (so higher utilization of care means higher reimbursement for the physician group), and then see other patients, even on the same day, with insurance plans that are capitated (so higher utilization means lower profit margins for the physician group, because reimbursement is fixed in advance and higher utilization means higher costs). Physicians in a group may treat patients differently depending on insurance coverage, or physicians may be blinded to the varying financial incentives. P4P incentives can add to that mix of broader payment incentives, but the overall impact of P4P may be hard to predict in the context of this already complex mix of incentives that often have much larger financial impacts on the group or the individual physician than those included in P4P programs.

Organizational culture. Physician groups and other health care organizations vary widely in their cultures. Some emphasize cooperation among physicians and other staff and free flow of information, whereas others emphasize competition among physicians, which can result in hoarding of information (Town et al., 2004). One study found collegiality, innovativeness, and autonomy to be negatively related to quality of care, whereas organizational trust/identity and emphasis on information flow were positively associated with quality (Smalarz, 2006). Many so-called integrated provider organizations exhibit multiculturalism by combining under one corporate umbrella different medical professions, divisions, departments, and teams that compete with one another more than they cooperate (Ferlie & Shortell, 2001).

A clash of cultures is often even more pronounced between physicians and health care managers (Shortell & Kaluzny, 2006). Physician culture is based on socialization from medical school, biological cause-effect relationships, short time frames for action, and responsibility and autonomy in caring for one's own patients. Managerial culture, by contrast, is grounded in the social sciences and business schools, and emphasizes less-clear-cut cause-effect relationships, longer time horizons, population averages, teamwork, and financial performance. Physicians sometimes resist managers' efforts

to standardize clinical practices to improve organizational performance on quality measures included in P4P programs. Alternatively, physicians may be more inclined to support efforts to develop clinical guidelines and quality measures spurred by medical professional societies and termed "evidence-based medicine."

Change management and quality improvement. The ability of an organization to implement changes in medical care practices can also influence its ability to improve quality of care. The organization literature in health care identifies six main characteristics associated with organizational change in health care: (1) leadership (commitment to both quality and efficiency for financial success); (2) a culture of learning (willingness to acknowledge and correct mistakes and utilize evidence-based care); (3) working in teams across professions and clinical and functional departments; (4) effectively using health information technology; (5) care coordination across sites and services; and (6) patient-centered medicine (involving patients as active managers of their own care) (Institute of Medicine [IOM] Board on Health Care Services, 2001; Christianson et al., 2006; Ferlie & Shortell, 2001; Grol et al., 2007; Klein & Sorra, 1996; Lukas et al., 2007; Town et al., 2004; Wang et al., 2006).

The Institute of Medicine (IOM Board on Health Care Services, 2001) has identified four stages of development that health care organizations need to move through to achieve high-quality care. These stages, presented in Table 3-2, also reflect the six characteristics associated with organizational change identified above. We can identify many health care organizations operating at Stage 2 or 3 already; few have achieved Stage 4. From this perspective, most health care organizations need to implement additional organizational changes to move to Stage 4 to achieve the highest quality of care possible.

Stage 4 organizations may be more responsive to P4P and better able to benefit from its incentives. However, if they have already achieved high levels of teamwork, patient involvement, and integration of information technologies, they also may not need external P4P programs to improve quality as much as other providers do. As a result, provider organizations that are actively working to move across these stages of development may actually show the largest measured impact of P4P programs on quality if the financial incentives help to facilitate the organization's advancement to a higher stage.

One of the lessons learned from total quality management programs is that quality improvement is hard to accomplish when financial incentives are

Table 3-2. Four stages of organizational development in health care

Stage	Description
1. Traditional private practice	• Fragmented delivery system • Physicians work independently; rely on journals, conferences, and peers to stay current • Information technology absent in most settings • Minimal use of allied health personnel • Passive patients
2. Limited coordination of care	• Well-defined referral networks • Continued specialty-oriented care • Limited evidence-based practice • Minimal information technology • Increased patient information and informal involvement in care
3. Team-based care	• Team-based clinical care common • Some use of nonphysician clinicians • Evidence-based guidelines applied in some practices • Information technology broadly applied, but most applications are stand-alone • Formal recognition of patient preferences
4. High-performing health care organizations	• Highly coordinated care—across provider groups and settings of care—over time • Evidence-based practice the norm • Sophisticated information technology linking all systems and groups; automated decision support • Extensive clinical measurement and performance feedback to clinicians; continuous quality improvement • Extensive training and use of nonphysician clinicians • Patients actively involved in treatment decisions

Source: Adapted from IOM Board on Health Care Services, 2001.

not aligned to reward quality improvements at the systems level (Kimberly & Minvielle, 2003). Physicians and hospital administrators commonly complain that FFS incentives in the prevailing health care reimbursement systems reward quantity, not quality. As a result, when financial pressures on institutions are high, they may focus more on quantity and billings at the expense of quality. A widespread concern among management and financial staff at hospitals and physician groups has been the lack of evidence to support the business

case for quality improvement efforts (Reiter et al., 2007). P4P programs can help to address that concern by linking reimbursement directly to quality measures and ensuring that the financial benefits from quality improvement efforts accrue to the organization that provided the investments required to implement them. Total quality management initiatives may be unsustainable without positive, systemwide financial incentives for improving quality.

Contingency Theory: A Multidisciplinary Perspective on P4P

As the preceding section indicates, developing a theoretical model of P4P requires a breadth of multidisciplinary perspectives: economic, organizational, psychological, and sociological. All of these perspectives include factors that can enhance or impede the intended impact of P4P programs. These perspectives must be accounted for in considering the range and complexity of policy, institutional, and technological factors at work in the health sector. As a result, P4P theories are likely to remain contingent, applicable under certain prescribed conditions but subject to reconsideration as factors from one or more of the disciplinary perspectives are modified. These theories will still be useful as long as policy makers understand that they apply to particular sets of institutional circumstances and that they can generalize to new circumstances only cautiously.

This type of theoretical situation is well known in management theory, in which "contingency theory" is one of the mainstream viewpoints (Shortell & Kaluzny, 2006). The central idea of contingency theory in management is that organizations and their subunits should develop structures, staff, cultures, and systems differently depending on the specific environments and technologies with which they are involved. Given that health care organizations operate in a very wide variety of environments and institutional relationships, and apply a broad range of different technologies, the contingency perspective has strong applicability (Shortell & Kaluzny, 2006). For example, quality improvement initiatives and P4P programs might well be organized differently depending on the local, state, and national policy environment each organization faces, the nature of the diseases and patients being treated, the types of physician and employee skills available, the internal organizational culture, the degree of teamwork among physicians and nonphysician health care professionals, and the extent of available health information technology.

However, this means that it will not be possible to develop a mathematical theory of P4P. Any mathematical theory that attempted to be comprehensive,

accounting for all of these complexities of real-world policy environments, institutional arrangements, and health care organizations, would be analytically intractable (Escarce, 2004). Conversely, efforts to provide for analytical tractability could be successful only by a degree of simplification that would compromise the value of a mathematical theory in making testable predictions.

Nonetheless, the multidisciplinary model points to particular factors that policy makers can use to enhance the impact of P4P programs. Policy makers can consider these insights in the contingency theory perspective and apply them where the combination of policy, technological, and institutional circumstances indicate they are likely to be beneficial for P4P programs. The rest of this chapter describes three examples of these types of multidisciplinary perspectives: (1) reinforcing medical professionalism, (2) patient-centered teams and bundled payment, and (3) centers of excellence (CoEs).

Reinforcing Medical Professionalism

P4P can help physicians to regain some of the benefits of medical professionalism and the related intrinsic motivation in several ways. For example, P4P revenues can support medical practice innovations to contribute to physician satisfaction (Mechanic, 2008; Trisolini et al., 2008). Additional P4P funding may enable physicians to have more time to establish stronger partnerships with patients, promote competent practices based on best available evidence, improve chronic care management, and improve patient satisfaction (Mechanic, 2008). Similarly, cognitive services provided by primary care physicians suffer financially by being more tightly linked to time with patients, a factor often down-weighted in physician fee schedules in comparison with medical and surgical procedures. Many advocates of doctor-patient partnerships believe that primary visits lasting about 30 minutes are often needed, but this is a pattern of care that insurers are unlikely to reimburse adequately (Mechanic, 2008).

In this situation, health insurers can use P4P to supplement reimbursement to primary care physicians by focusing on primary care–oriented quality measures as the basis for P4P bonus payments. Longer patient encounters, often involving nonphysician clinicians, are more financially viable when extra P4P reimbursement will come from quality-of-care improvements achieved through those new patterns of care. Hence, P4P can open up other ways of practicing that may enable primary care physicians to escape the visit-centric emphasis of ambulatory care that is often their only way to gain adequate

FFS reimbursement (Trisolini et al., 2008). The economic incentives of P4P can reinforce both the sociological perspective on professionalism and the psychological perspective on intrinsic motivation that many physicians deem important. This will enable P4P programs to have improved opportunities for significant impacts on quality-of-care outcomes.

Patient-Centered Teams and Bundled Payment

Most P4P programs have opted to focus financial incentives for quality improvement not on individual physicians, but rather on higher levels of the health care system, such as multispecialty physician groups or hospitals. This approach recognizes the teamwork orientation of modern medical care organizations within the incentive system, providing incentives for collaboration among clinicians and recognizing better coordination of care. It is also consistent with Wynia's (2009) emphasis on focusing P4P on team or group rewards rather than individual physician rewards, to avoid or mitigate damage that financial incentives may do to intrinsic motivation. In addition, P4P programs could be targeted to lower organizational levels, such as a diabetes disease management program that requires teamwork among endocrinologists, primary care physicians, nurses, and diabetes educators.

P4P payment for episodes of care also make possible broader, cross-institutional teams. Episodes, which may last 30 days or more beyond a hospital discharge, allow bundling of P4P reimbursement across a range of providers, such as hospitals, physicians, and post–acute care providers. The opportunity to earn P4P revenue can enhance the integration of all of these different types of health care teams and reduce the risks of promoting competition and fragmentation of care if P4P focuses on the individual physician level.

Centers of Excellence

An alternative P4P approach, CoEs can also recognize and financially reward tightly integrated, high-performing, clinical care organizations. Physician-hospital or ambulatory primary care groups could receive a CoE imprimatur after a thorough examination of their quality-of-care performance. This approach has the advantage of more explicitly recognizing an organization's holistic performance, and P4P linked to CoE can provide incentives for organizational change toward higher stages of organizational development, described in Table 3-2. The CoE imprimatur could also enhance physicians' and other clinicians' reputations on the regional or national stage; this positive

effect could complement the financial rewards that P4P programs provide and increase their impact.

In sum, theoretical perspectives from several different disciplines can aid in the design of P4P programs by identifying factors likely to enhance or inhibit the effects of P4P. A multidisciplinary or "composite" perspective from contingency theory will enable the design of P4P programs to better respond to the range of factors that may affect their success. This approach will enable P4P to move beyond the simpler theory underlying most early P4P programs, which focused on economic perspectives, and enable P4P to improve its impact on health care quality and cost outcomes.

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