Title: Pay for Performance: Physician’s Involvement in P4P System Design

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ABSTRACT

Objective: The role of this paper is to examine physician involvement in the design of pay for performance (P4P) programs. These initiatives are experimental and have wide variation in the way each program seeks to reward healthcare professionals, physician groups, and hospitals for higher quality and lower costs. Historically physicians have had different levels of involvement with the design of these programs and in this paper it will address the theoretical assumptions underlying their participation.

Methods: Three sources of information are employed in this paper. First, sociological and psychological theories are explored for relevant indications and applications as to how social factors might influence physician behavior vis-à-vis P4P programs. Second, a search of relevant materials was conducted using library databases and academic works including journal articles. The literature consists of four studies that conducted physician surveys in the United States and two survey studies that were conducted in the Netherlands in addition to literature regarding related theoretical perspectives. The results from the literature and physician surveys are summarized and anticipated effects and unexpected consequences of physician participation are discussed. Both qualitative and quantitative studies are included in this review. Finally and third, two case studies that employed P4P in the Netherlands are presented.

Results: The results suggest that the participation of physicians in the design process will result in more effective pay for performance programs. The results show there is some controversy between the different theories and methods of implementation that need to be considered when implementing this type of experimental program. Doctors were shown in some studies to favor P4P policies when involved in the design process; other studies verified that a lack of physician involvement resulted in ineffective P4P programs.

Conclusions: The resulting conclusion is that physician participation in the development of P4P system design promotes positive attitudes about P4P and increases the likelihood of implementing a successful Pay for Performance program. The cases illustrate the value of physician participation in P4P structuring. Policymakers should include physicians and other health professionals in the design process while also focusing on creating evidence-based policy.

Pay for Performance: Physician’s Involvement in P4P System Design

What is “P4P”?  

In various countries there is a great interest in Pay for Performance (P4P) programs. Agencies, physicians, and governments are involved in the design of these programs. These programs aim to reduce the health system costs and to improve quality of care. Since managed care (HMOs) and the introduction of capitation in the healthcare sector, P4P is one of the most
significant developments (Rosenau, Lal & Lako, 2012). P4P programs recompense physicians and other health professionals for adhering to measures associated with quality of care, controlling costs, and for compliance with specified clinical guidelines (Rosenau & Lako, 2010). Governments and non-governmental agencies aim to alter the behavior of these health professionals through the use of rewards, punishments, or a combination of the two (Rosenau & Lako, 2010). Rewards are not necessarily monetary however, most of the time they are salary add-ons for physicians or bonuses provided to hospitals for meeting performance measures. In some instances if the measures are not met then funds are reduced (Rosenau, Lal & Lako, 2012). Assessing the types of rewards and how they are given is important when studying and implementing pay for performance programs.

Rewards account for a major part of P4P programs, but the performance improvement aspect also plays a significant role considering that rewards are often given as a result of meeting the improvement measures. Examples of how P4P programs intend to improve performance are: increasing the volume of patients treated for diabetes and other chronic diseases; reducing wait-time; reducing utilization of unnecessary diagnostic tests; and through the use of technology (automatic call distribution software, entering patient information in electronic medical records according to certain standards, etc.). One way of measuring these performance improvement mechanisms is by studying patient outcomes (lower cholesterol as an example). Pay for performance programs have varying goals where some are aimed at achieving certain quality benchmarks for process measures related to providing care and others are concerned with achieving certain patient outcomes. The goal is most often to align performance improvement with cost cutting measures so that the quality of care will rise as the costs decline. These various P4P programs provide an incentive for raising the standards of efficiency, quality, or both depending on the goals of the program.

Performance improvement methodologies and rewards for these measures are incredibly important with P4P and many studies that research these experimental programs are assessing adequate reward systems and the effects of P4P (Abelson, 2007; Peterson, Woodward, Urech, Daw & Sookanan, 2006). Less attention has been paid to the attitudes of the physicians and especially their involvement in the design of P4P programs. It is often believed that physicians will favor P4P, which is surprising taking into consideration that studies indicate outcomes vary depending on the variables associated with each program.

Various theories associated with P4P

There are many theories associated with pay for performance initiatives that contribute to understanding how these experimental programs should be designed. Here we consider the principal agent theory, the multiple principal multiple task theory, theories on participation, organizational theory, and psychological theories surrounding intrinsic and extrinsic motivation including expectancy theory.

The principal agent theory is a theory from the field of economics and states that the principal is unable to observe the agent’s efforts with regards to providing good quality (Pomp, 2010). Within the realm of healthcare the principal is the patient or health insurance company and the agent is the medical professional. Consequently it can be understood that patients as well
as health insurance companies lack the access necessary to assess the quality of care being provided by the medical practitioner(s). Physicians should therefore be rewarded on the basis of something other than effort such as on quality outcomes, volume of patients, customer satisfaction, or on a combination of these or other measures. This is because the “principals” cannot really tell if the physician is doing high quality work or not. One of the primary focal points of this theory is that the more difficult it is to observe quality, the more important it becomes to select the right agents, or in the case of healthcare the right physicians, who will have an innate motivation for providing high quality care. The principal agent theory predicts that selecting physicians and other healthcare practitioners (for example nurse practitioners and physician assistants) who have an innate motivation to provide high quality care for patients is critical if P4P programs are to be successful. This raises questions regarding what intrinsic motivation is, as it may be associated with income, but it could also be associated with professional respect and status. Physicians are certainly motivated by income, but if this was their sole motivation it is doubtful that other dimensions of the profession would be observed, such as displays of empathy while listening in the medical encounter, or that great care would be given when working to achieve quality. (Petersen et al 2006). These other dimensions of the profession are associated with nonmonetary incentives that, like monetary incentives, affect effort. Solely utilizing monetary incentives may result in a loss of intrinsic motivation (Pomp, 2010).

Another complication in development of P4P programs that affects the motivation and effort of physicians is associated with the multiple principal multiple task theory stating that by rewarding incentivized tasks, other non-incentivized tasks may be neglected. In the field of education this is commonly noted as “teaching to the test,” where there may be issues with students only learning information relevant to the examination rather than all the necessary content of the course. Considering the many tasks bestowed upon physicians (clinical performance, clear and friendly communication skills, technical knowledge, etc.) this kind of complication may result in the non-incentivized measures negatively impacting the P4P program. In this instance, more than the P4P program may be jeopardized where the patients, the health insurance company, or whomever the principal is may suffer (Pomp, 2010). Therefore intrinsic motivators, both monetary and nonmonetary incentives, need to be considered by weighing the positive and negative effects each reward may have on the system.

Psychological theories reveal that participation increases the quantity of information on expected performance outcomes, helps to ensure workers value their recompense, and facilitates visualization of the relationship between performance and outcomes; due to these factors it can be understood that participation greatly influences the motivation of physicians in P4P programs (Lawler, 1990).

Expectancy theory is a psychological theory that identifies individuals as being internally motivated by the value of the rewards they seek and how they are related to: the desired outcome, the probability of receiving the reward, and the probability of achieving their outcome goals through their own action (Murphy & Nash, 2008). Expectancy theory predicts that nonfinancial incentives including reporting physician’s services should be considered in rewarding physicians (Murphy & Nash, 2008). The use of expectancy theory is controversial however as some studies indicate a lack of physician support for reporting physician’s services (Murphy & Nash, 2008).
Despite any controversy about psychological theories, these theories are of value in understanding how money, recognition, and praise act as motivators. Money is an important motivating factor for physicians, though not necessarily the primary motivator. This is due in part to the enormous investment in time and money in their training. This forfeiture of time and money results in physicians working for generous remuneration and as a result, it can be expected that economic incentives used in P4P programs can have a significant influence on the improvements in quality of care if the financial incentive does not negatively impact the physician’s intrinsic motivation (Cromwell et al., 2011). Although monetary benefits may work as a positive extrinsic motivator, heavy workloads and time pressures, that are now a part of many overwhelming clinical guidelines, can unfavorably influence a physician’s capacity and desire to contribute to improvements in quality of care (Cromwell et al., 2011). Validation and appreciation from colleagues and patients is often highly valued amongst physicians, whether it is derived from developing an innovative clinical procedure, starting a quality improvement initiative, or is associated with research and policy. If a P4P program is interested in being effective and garnering physicians’ support then it should recognize successes in quality improvement (Cromwell et al., 2011). The extrinsic and intrinsic motivations that result when a physician takes care of a patient over a long period of time has substantial psychological rewards that are unlikely to be observed in fields other than medicine. Therefore enabling physicians to participate in creating an environment that fosters these positive psychological rewards are likely is result in improvements in quality of care.

Organizational theory recognizes organizational culture and organizational structure as important factors in the design of P4P programs. Physician culture and managerial culture contrast one another more than other cultures found in the healthcare environment (Cromwell et al. 2011). Whereas physicians are concerned with biological cause-effect relationships and are highly focused on the short-term, in the managerial culture there are less clear-cut cause-effect relationships and they are looking at things from a long-term perspective in European systems. Additionally, physicians operate based on their responsibilities when caring for patients in a one-on-one relationship that is contrasted by managers working with population averages, teams of people, and greater concern for the financial performance (Cromwell et al. 2011). The clash of cultures may interfere with the efficacy of P4P programs. Managers tend to improve organizational performance on quality measures in P4P programs whereas physicians may be more inclined to support efforts to develop clinical guidelines (best practices) and quality measures advocated by medical professional societies. The manager and physician relationship may vary according to the national health system in which they operate.

Managers and physicians are not alone in needing to find common ground to produce an effective P4P program. Payers and practice executives are also involved in the design of these programs and they too need to work together if P4P programs are to be a means for improving quality of care (Bokhour et al., 2006). Payers need to not only work with the practice executives, but also are in need of incorporating physician perspectives. After all, the burden of the P4P programs generally weighs most heavily on physicians (Walla 2008). In the US however, P4P programs also weigh on hospitals and the cost of low performance is felt from top to bottom. Some evidence suggests that the intrinsic motivation of physicians may be damaged by financial incentives; this speaks to the need for physicians to be involved in the P4P design process. If
physicians are not included in the design process, there may be negative ramifications for quality of care. To prevent negative quality related consequences of the impact of financial incentives on intrinsic motivation, a P4P the programs needs to ensure that rewards go not to an individual physician, but to the medical team as a whole. At the same time physicians need to have discretion when dealing with outliers (for example patients with co-morbidities. (Cromwell et al., 2011).

Opposing evidence suggests that P4P rewards need to be linked to the individual whose behavior is in need of change and that payment needs to be time-linked (Rosenau, Lal & Lako, 2012). Wherever the P4P program is to be implemented the policymakers needs to take into consideration all the evidence and investigate which methodology the physicians who will be participating in the program prefer. Given the opportunity to match quality measures with evidence-based medicine, physicians are more likely to support the measures. This is reasonable given that medical research is rapidly advancing and changing the way medicine is practiced; P4P programs supportive of this will enhance quality while advancing the use of proven medical technologies.

**Empirical Research about Physician Involvement in the Design of P4P programs**

Further support of physician involvement in the design of P4P programs can be found from several large-scale surveys conducted amongst physicians (Casalino et al., 2007; Young et al., 2007; Mehrotra et al., 2007; and Murphy & Nash, 2008). The first study being assessed was conducted by Casalino et al. in 2007, and surveyed 1,668 physicians with a 48% response rate to be used in their results. This study concluded that with accurate measures, 3 in 4 physicians supported financial incentives associated with quality, but responses in the study also indicated that less than one-third of the physicians questioned thought the current measures were accurate. Additionally, the physicians had low expectations that the government and health plans would make an effort to create accurate measures. If the measures are not changed whereby physicians’ perceptions on the measures change, then there will not be support for such financial incentives within P4P programs. The conclusion reached in this study stated that policymakers should pay close attention to physician support for P4P programs and to improvement in quality of care.

The second study was conducted by Young et al. in 2007 and received 1,243 responses from physicians in Massachusetts and California with respective response rates of 39 and 45 percent. Findings from this study indicated that most physicians had a positive opinion regarding quality based P4P programs and taking this into consideration, policymakers have been placed in a propitious position to initiate such programs with minimal resistance (Young et al., 2007). Although physicians in each state have expressed support for the P4P initiatives in which they were involved, many of the physicians had a negative opinion regarding the reward amount and were critical of the impact the program was having on quality of care. The success of such programs will be determined by how effectively each program responds to the well-founded concerns of its participating physicians (Young et al., 2007).

The third study looking at support for physician involvement in P4P initiatives took a different approach than the previously mentioned studies as it surveyed 79 physician group leaders as opposed to individual physicians. These leaders spoke on behalf of the physician
group and while not all physicians within the groups were convinced that quality initiatives were needed, the leaders of the groups did see a correlation between P4P initiatives and quality improvement. Physician involvement occurred by incentivizing the physicians with 5% of their pay or more. In this study conducted by Mehrotra et al. in 2007, it can be inferred that if physicians were not involved to help identify a worthy reward for participation in the P4P programs then the financial incentive may not have been enough to garner physician participation; potentially without physician involvement, the quality improvements that have been seen by physician group leaders would not have occurred. Larger physician networks were more likely to be involved in quality improvement initiatives and this study identified that affiliation with one of these physician networks was an important factor in P4P incentives (Mehrotra, et al. 2007).

A fourth and final study from the U.S. being used as further support for the involvement of physicians in the design of P4P programs was conducted by Murphy and Nash in 2008 and took the approach of gathering 211 surveys from non-primary care physicians in Pennsylvania (cardiology, obstetrics and gynecology, hematology, oncology, orthopedic surgery, and urology). This study’s findings showed that specialist societies influenced the opinions of its members on P4P Programs. Physicians in these non-primary care fields also stated what types of quality improvement initiatives were supported and which were not (example: public reporting initiatives are unsupported and electronic medical record quality improvement initiatives are supported), thus it identified the need for physicians to be involved in the P4P program design process. Specialist societies, acting as leaders amongst the non-primary care practitioners, can obtain information on evidence based quality improvement measures and garner support for P4P initiatives. Physicians who had a favorable opinion of P4P reimbursement methods, which was more likely if they gained insight from their specialty society, were more likely to participate in P4P quality initiatives. Enlisting the help of specialty groups and the physicians within those specialties will produce P4P measures that are preferred by specialist physicians and may be more effective at achieving these physician supported quality measures. This study and others showed that physicians care deeply about the types of quality measures being aimed for with these P4P programs; discerning program designers and policymakers will incorporate the physician perspective into their P4P initiatives.

Case Studies from The Netherlands

It is important for policymakers of P4P to involve more physicians and other professionals in the design. They should incorporate evidence-based medicine and carefully assess the intrinsic and extrinsic motivators of the care providers involved in the program. This approach may result in more fairness in P4P programs and reduce the administrative burden. Specialist organizations could also play a role in this process when taking into consideration that their members value the advice they distribute.

Case 1 P4P in Dutch general practice in Limburg (the Netherlands)

In 2009 IQ Healthcare, a Radboud University scientific institute researching the quality and safety of healthcare, initiated a P4P experiment. Family physicians, health insurers (CZ and VGZ) and patients were involved in the design of the experiment and the insurance companies financed the experiment as well as the necessary research. The experiment aimed to reward
family physicians for quality improvement (Kirschner et al., 2009) and was based on three assumptions:

1. Relevant stakeholders were involved in the design of the experiment and the establishment of a bonus;
2. The experiment was connected with other relevant experiments including practice accreditation;
3. Researchers used existing instruments.

This study found that quality indicators for care of chronic diseases in general practice medicine improved 10 percent on average and indicators for the patient experience improved 5 percent. Results from this study indicate that pay for performance can improve the quality of care. To achieve success it is very important for the development of an acceptable P4P model where those working within the model fully agree with the measures. In addition, it has been found that the introduction of P4P should be related to an organizational structure that enables quality improvement in general. Interviews with the physicians show that some are not in favor of rewards when they are not involved in these efforts. Other physicians consider the reward an incentive for their work in the program. Finally, the study showed that a reward of 5 - 10% of the income generated from the individual physician’s practice was considered fair. Based on the results it is necessary to prepare plans for implementing this model and including within these plans a set of guidelines for any problems that may occur.

**Case 2 Automated Call Distribution in general practice**

In 2011 the Dutch ministry of Health Welfare and Sports initiated a P4P program for Dutch family physicians that required them to upgrade their automated call distribution (ACD) software or services for the purpose of improving access to their practices. It is important to note that all family physicians were forced to cut back on their enrollment rates (€ 60 million), meaning they had to take a payment cut for each patient in their practice. If a family physician upgraded his or her ACD software according to the guidelines of the Inspectorate of Health, they were rewarded with €8500, exactly the amount that was previously cut out of their enrollment rate. In 2011 a small survey was conducted amongst family physicians in the Amsterdam area with a total of 83 valid responses (an 80% response rate). One of the questions inquired about attitudes towards regulated competition (Janssen, 2011). Figure 1 summarizes the most important findings. Results of this survey indicated that the majority of participating physicians did not have a positive opinion regarding this experiment. Only 23% of the physicians stated it would improve healthcare. The highest percentage of GPs, at 50%, stated that achieving the goal became more important than the quality of care. Up to 21% of GPs believed that the program was more concerned with cutting costs than quality improvement.
Almost all family physicians met the requirement of the Ministry of Health Welfare and Sports although they did not support having their enrollment rates cut. In a few interviews physicians anecdotally emphasized their negative attitudes towards this P4P experiment. Although the study does not provide more detailed information, it seems that these negative attitudes resulted from two factors:

1. The physicians were not involved in the design of the experiment; they received a letter from the Inspectorate of Health and were told they had to meet the requirement before July 1, 2011.

2. They were not actually rewarded for meeting the requirements of the Ministry of Health Welfare and Sports because the “reward” was exactly equal to the funds cut from their total compensation.

**Results**

The research presented here argues that a physician’s timely involvement in P4P system design may contribute to a greater effectiveness of P4P. Several theories outlined above point to the logical and rationale for physician involvement in P4P design. The four physician surveys that were conducted in the United States confirmed the need to include physicians for successful P4P programs. The same was true of the two case studies of P4P programs in Dutch family practice that were conducted in the Netherlands.
Policy Implications and Conclusion

Pay for performance initiatives exist in the hopes of improving quality and lowering costs in the current health systems. Theories regarding participation identify that a physician’s motivation is influenced by their participating in the program’s design; this enables them not only to influence the expected outcomes, but also to better understand the expected outcomes on performance. By participating they will see greater value in the rewards received and will have a greater understanding of the relationship between their performance and patient outcomes. These theories identify that involving physicians may enhance the success of P4P experiments. However, it should be taken into consideration that this involvement has costs: it takes time and may utilize more financial resources. Weighing the costs and benefits of each individual pay for performance program will ultimately determine whether or not to implement such an experimental system.

Payment systems at this time do not appropriately incentivize physicians to implement initiatives associated with quality improvement and P4P programs intend to change this by rewarding physicians as well as other health professionals for meeting benchmarks as they are designed by both governmental and non-governmental organizations. Policymakers aim to change payment systems with the introduction of P4P, but they do not often consider how complex the motivations of health professionals really are. It is seldom realized that physicians are risk averse regarding reimbursement and the dimensions of quality improvement increase the risk (Murphy & Nash, 2008). It is therefore understandable that physicians do not easily support the terms of payment incorporated into P4P programs. The nature of the rewards is complex and though it is often believed that physicians will always prefer a bonus, this has not been found true everywhere.

Successful P4P programs need to be structured so as to improve quality and this can take place when managers, practice executives, and payers enlist the expertise of physicians in ways that do not inhibit physicians’ quality-improving intrinsic motivations. Assessing the extrinsic and intrinsic motivations of these physicians plays an important role in designing P4P programs. The professional values associated with practicing medicine are difficult to change and altering the behavior associated with these values means being able to evaluate and change the intrinsic motivation. Therefore P4P initiatives should consider appealing to the intrinsic values of physicians in an effort to align those values with improving quality of services for more effective care. In addition to studying the intrinsic motivations of physicians, it will be important to fully utilize the information gained from the tested theories and other P4P tactics discussed in this paper. If evidence-based initiatives are not implemented and in conformity with what is known about physicians’ motives, then P4P programs are in jeopardy. The second case study in the Netherlands, reported above, illustrates how programs which do not take into consideration physicians’ views can miss their mark.
References


