

# Assessing the Acceptance of the Pay-For-Performance Model in a Segment of California Pharmacists

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## Abstract

### Background

Pay-for-performance (P4P) is a payment system in which providers are rewarded financially for the outcome of patient care. This study surveyed pharmacists to gain an overall understanding of their knowledge, experience, and attitude toward P4P. We investigated if having prior experience with P4P influences one's attitude toward and acceptance of this payment model.

### Methods

A cross-sectional study was performed where a survey was sent to pharmacists affiliated with the University of California, San Diego (UCSD) School of Pharmacy. Data was collected over a two-week period. Chi-square and odds-ratio (OR) tests were used to assess an association between payment preference and the following factors: management experience, experience with P4P, years of practice, and familiarity with P4P. Six benefits and six problems relating to P4P were evaluated.

### Results

Eighty-seven pharmacists participated in our survey. Fifty preferred traditional pay, and thirty-seven preferred P4P. The OR analysis suggests: 1) Pharmacists with P4P experience are 50% more likely to prefer P4P, 2) Pharmacists with management experience are 39% more likely to prefer P4P, and 3) Pharmacists with less than five years of working experience are 12% more likely to prefer P4P. The top perceived benefit of P4P was increased collaboration among healthcare providers. The main perceived challenge was cumbersome billing processes.

### Conclusion

Pharmacists with P4P experience held more positive views of the payment system. Pharmacists without experience in the program were less supportive. The positive responses about P4P from those with P4P experience suggest that employers may receive more support for P4P from their staffs by educating them about the benefits of the model.

## Objectives

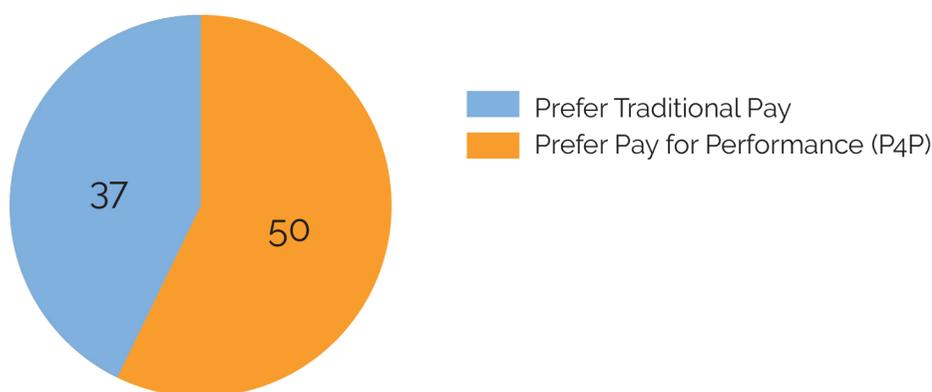
This study aimed to investigate the correlation of pharmacists' willingness to use a P4P system if they have prior experience or understanding of P4P. The secondary aim was to survey the perceived benefits and problems of implementing P4P in a pharmacy setting.

## Background

Pay-for-performance (P4P) was introduced nearly 20 years ago as a way to improve patient outcomes while reducing healthcare costs.<sup>(1)</sup> Healthcare is one of the most-discussed topics in the United States. Lawmakers and care providers are constantly finding ways to make healthcare affordable. An innovative method of reducing healthcare costs is exploring the possibility of implementing a pay-for-performance payment system. In P4P systems, providers are financially rewarded when their patients show improved health outcomes.<sup>(2)</sup> A non-fee-for-service payment model such as P4P has the potential to enhance quality of care, reduce hospital readmissions, and effectively reduce costs to our healthcare system.<sup>(3)</sup>

As the role of pharmacists in healthcare continues to expand, the P4P payment model is becoming more important. The number of specialized pharmacists involved in clinics such as pediatrics, oncology, infectious diseases, and psychiatric care has significantly increased in the past couple of years.<sup>(4)</sup> Pharmacists have historically been compensated for their involvement in dispensing activities. It is equally essential that pharmacists participating in expanded healthcare roles be compensated for those actions as well. A recent study has shown that infectious disease pharmacists could save a hospital \$200,000-\$900,000 annually on reducing antibiotic use. Medication therapy management (MTM) pharmacists have been shown to save hospitals \$12 for every \$1 spent.<sup>(5)(6)</sup> When the Centers for Medicare and Medicaid Services (CMS) penalized hospitals for poor value-based performances, hospital directors sought to improve their pharmacy departments, because many of the hospital performance measures could be remedied with changes in both inpatient and outpatient pharmacy directives.<sup>(7)</sup> The P4P model is significant because it shows the importance of pharmacists' key contributions to savings.

Figure 1.



Of the 87 pharmacists who participated in our survey, 50 preferred traditional pay (57%) and 37 preferred P4P (42.5%).

There is a huge potential of saving money by implementing a P4P payment system to pharmacists; however, only a few pharmacy departments in the United States have utilized P4P. Most P4P studies focus on patient outcomes and economics for medical doctors, but not specifically for application in pharmacy. A recent study by Rosenthal et al. investigated pharmacists' perceptions of P4P in Canada. They concluded that pharmacists prefer a hybrid of fee- and outcome-based payment models, but they only collected data from eight pharmacists, and the study was not conducted in the United States. In this study, we hope to gain insight into the attitudes of pharmacists regarding a P4P payment model. Understanding pharmacists' attitudes and knowledge regarding P4P can help others implement this payment model. By surveying pharmacists across San Diego County, California, this study aims to better understand whether there is a preference among pharmacists for the P4P payment model or the traditional payment model.

## Methods

A cross-sectional study was performed. A 21-question survey was sent to approximately 700 pharmacists affiliated with the UCSD School of Pharmacy. This population included UCSD faculty, alumni, and practicing pharmacists from diverse aspects of the pharmacy community, mainly located in San Diego County. The survey was administered via Google Forms from August 4, 2016, to August 19, 2016. The UCSD IRB office gave ethical approval for the study.

Our main inclusion criterion was that all participants must be licensed United States pharmacists. The survey consisted of demographic questions and questions about years of experience, completion of residency, prior management roles, and practice settings. The survey focused on the participant's knowledge, experience, and attitude toward P4P. To ensure that the participants had a standard understanding of P4P, we defined P4P in the survey as a "payment model that gives financial incentive to health providers based on improved patient outcomes."

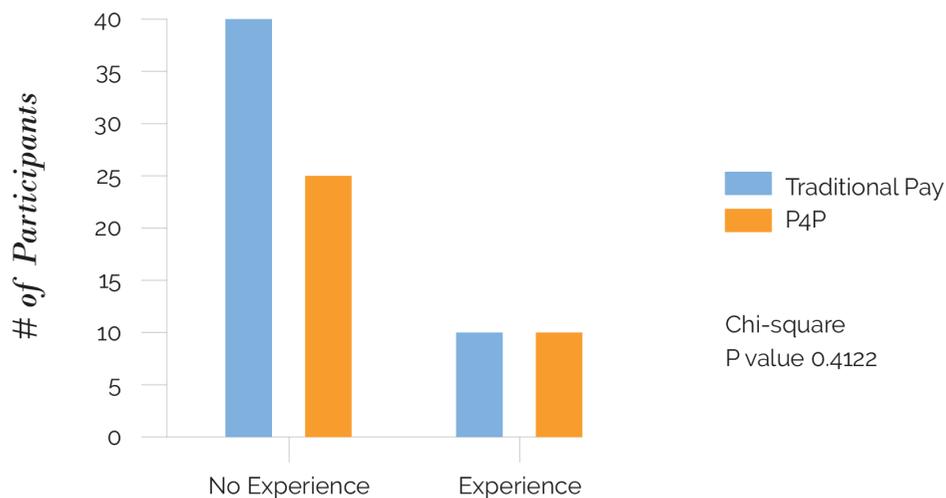
STATA 13 was used to analyze data, and GraphPad Prism 7 was used to create charts and graphs. Chi-square and odds-ratio (OR) tests were used to assess an association between payment preference and the following factors: management experience, experience with P4P, years of practice, and familiarity with P4P. The a priori level of significance was set at  $p < 0.05$  for statistical tests. Six benefits and six problems relating to P4P were evaluated. Participants were asked to choose strongly disagree, disagree, neutral, agree, or strongly agree, with an assigned value of -2, -1, 0, +1, and +2, respectively; the summed value per question was used to assess the magnitude of the benefit and problem.

## Results

A total of 87 pharmacists participated in our survey. The average age was 41, with a range of 26-72 years old. Of the participants, 48 were female, 36 were male, and 3 declined to state their gender. About half of the participants (43%) practice in acute care, 28% in ambulatory care, 14% community pharmacy, and 10% work in pharmacy administrations. The participants had 14 years of working experience on average. About a quarter of the participants had P4P implemented in their past or current practice, and nearly half state they are "somewhat familiar" to "extremely familiar" with P4P. The odds ratio analysis suggests the following will make participants more likely to prefer P4P:

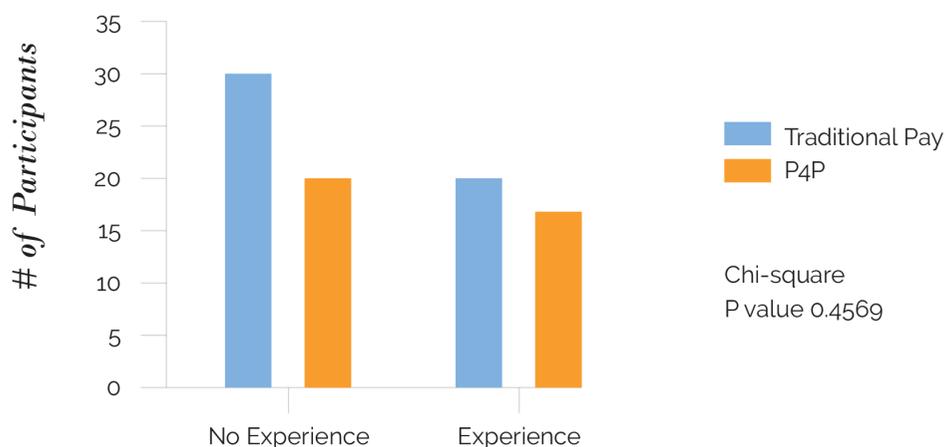
1. Pharmacists with P4P experience are 50% more likely to prefer P4P (Figure 2).
2. Pharmacists with management experience are 39% more likely to prefer P4P (Figure 3).
3. Pharmacists with less than five years of working experience are 12% more likely to prefer P4P (Figure 4). We also found that pharmacists with P4P experience were 40% more likely to believe that P4P will be implemented in the future.

Figure 2.



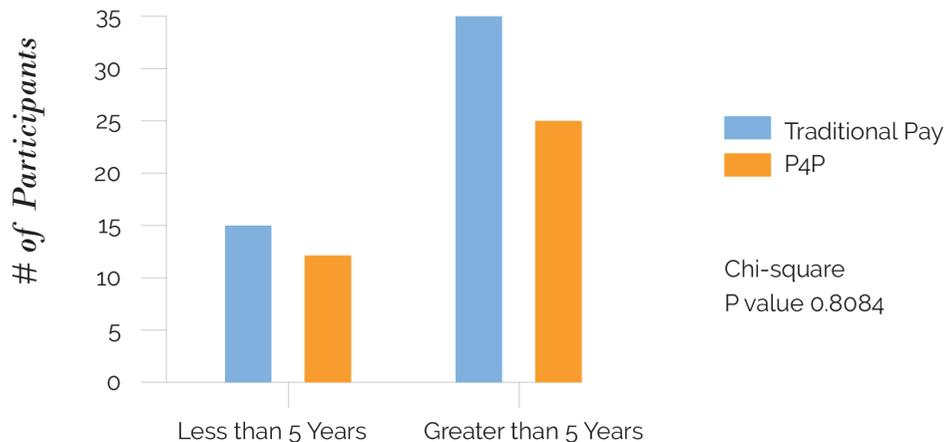
*Prior or Current Experience with P4P*

Figure 3.



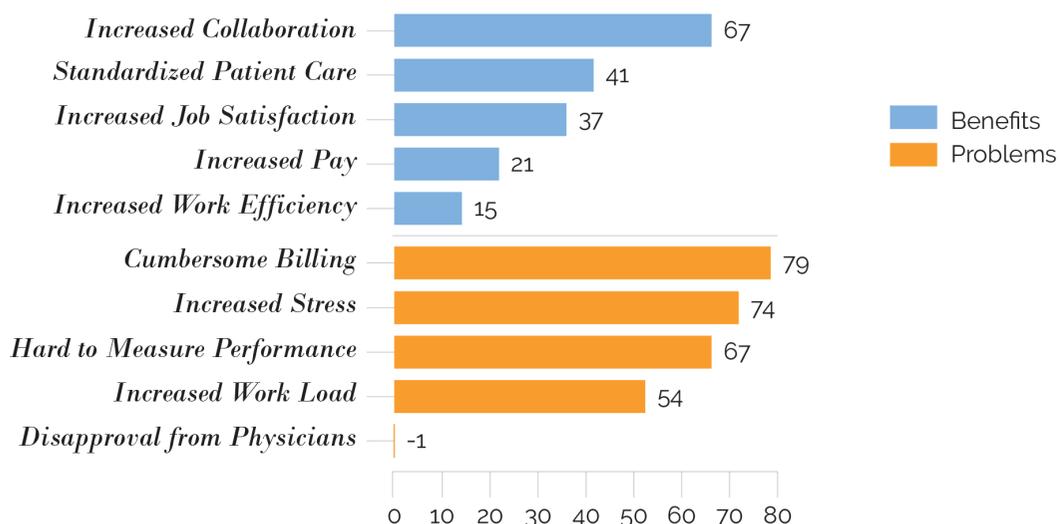
*Management Experience*

Figure 4.



*Years of Experience*

Figure 5.



## Discussion

This study surveyed the general attitudes toward and experiences with pay-for-performance among pharmacists with various backgrounds. Our data suggests that having prior experience using the P4P payment model is an important factor for acceptance. Those with P4P experience are more likely to accept it as a form of payment and see it being implemented in the future. Those with no experience with P4P tend to have negative opinions about the model and would prefer to have traditional pay (Figure 2). Interestingly, we also found that people with management experience are more likely to accept P4P (Figure 3). A plausible explanation is that managers are more interested in improving productivity and collaboration. The data suggest that one of the main benefits of P4P is increased collaboration among healthcare providers (Figure 5). In addition, it was found that pharmacists with less than five years of working experience are more likely to prefer P4P (Figure 4). Younger pharmacists may be more willing to accept changes in the workforce than their more experienced colleagues.

Nevertheless, a team-based approach introduces certain barriers to the implementation of a P4P model in pharmacy settings, specifically on who should receive credit, and thus compensation, for improving patient outcomes. For example, in community pharmacy, it is often the pharmacy, not the pharmacists, that is rewarded for improved patient outcomes. To get more pharmacists interested in a P4P model, pharmacists need to be directly compensated. Other limiting factors to P4P for pharmacists include low reimbursement rates, burdensome billing processes, lack of privacy in the pharmacy for extensive consultations, scant publicity concerning the availability of services, and indifference among physicians and patients.<sup>(8)</sup> Equally important, having provider status makes reimbursement for value-based services attainable; however, not every pharmacist is legally recognized with such a title.<sup>(9)</sup>

Although our data was not statistically significant, the noticeable differences among the results should not be disregarded. Most of the statistical tests were underpower-

ed because responses were gathered from a small sample size of less than 100 pharmacists. Most pharmacists who have a favorable response to P4P had prior P4P experience. This suggests that employers should ensure that staff is well informed and understands P4P before implementing it in the workforce. Employers could thoroughly educate their staff members about the benefits P4P provides, and pharmacists who have experience with P4P tend to like it.

## Limitations

This study has several limitations. The participants were mostly faculty, alumni, or affiliates of the UCSD School of Pharmacy, so our data might not reflect the viewpoints of California pharmacists as a whole. Our participants' occupational setting may differ from that of a traditional pharmacist given their affiliations with a major academic health center. This study could have been more significant by having more pharmacists from more diverse backgrounds. Our other challenge is that we had a 12% response rate to the survey.

## Conclusion

Roughly half of the pharmacists who participated in our survey preferred traditional pay over P4P compensation. Pharmacists with prior P4P experience were more likely to accept its integration in their workforce. The top benefit of P4P was believed to be increased collaboration, while the most commonly perceived problem was cumbersome billing processes. The need for a new payment model is increasing as the role of pharmacists continues to expand. A non-fee-for-service model such as pay-for-performance compensation could increase productivity, enhance patient care, and have huge savings potential for our healthcare system. Informing pharmacists about P4P is likely an effective way to implement such a payment model.

## About the Authors

Dr. James Colbert, PharmD, corresponding author, is a Health Sciences Clinical Professor and Associate Dean for Experiential Education at the University of California, San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences. Dr. Colbert has no bias to report.

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Han Dinh, and Jessie Wang are PharmD candidates from the class of 2019 at the University of California, San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences. They have no bias to report.

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