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FINANCIAL INCENTIVES: PAY FOR PERFORMANCE (P4P) AND THE CHRONICALLY ILL PATIENTS

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ABSTRACT

P4P is the reimbursement incentive that is based on quality improvement, efficiency, which is dominating the healthcare landscape and CMS. A literature review was conducted to search for and review significant information regarding P4P and how it pertains to chronic conditions and reimbursement methods. This literature review displayed while some programs were able to display a benefit/ profit for those involved such as insurance companies, hospitals, physicians and/or patients, most programs were unable to establish quality measures, cost effectiveness and positive program outcomes worth noting.

Key Words: Pay-for-Performance, Chronic Care disease, Cost, Outcomes, Reimbursement

INTRODUCTION

Pay for Performance (P4P) is a reimbursement method which bases payment on a number of categories including patient outcome, quality of care and overall patient satisfaction (U.S. Department of Health and Human Services 2011). It has been in practice in the United States (U.S.) more prevalently in the past decade but it has been developed in nationalized or socialized healthcare systems around the world, though especially in Europe, since early 1990's. A very good example of the usefulness and streamlining of the P4P initiatives are as a result of what many in the medical field regard as the birth place of the program, the United Kingdom's (U.K.) National Health Service (UKNHS), (Starfield, Shi, & Macinko 2005). Structured much like the Center for Medicare and Medicaid Services (CMS) programs, the UKNHS is one of the few reimbursement systems in the U.K., as few have privatized health care providers that are utilized by a vast majority of the population (Doran et al. 2006). The P4P program had its base in family medicine and primary care physicians groups, and has been used to promote early detection of diseases, proper nutrition and healthy lifestyles, immunizations and annual examinations. Coupled with this, P4P has been used to encourage quality and cost effective health care (Roland 2008).

In the UKNHS system, there are many benefits to use this type of reimbursement system. All patients enrolled in the program have full life records, as the U.K. has utilized Health Information Technology (HIT) far better than the U.S. (Roland 2008). Primary care physicians, as to all physicians and facilities, undergo annual performance reviews based on both regional and national standards in healthcare (Doran et al. 2006). Financial incentives that are realized have been used to bolster the professional staff serving in the medical field to assist primary care physicians practices such as additional nursing and administrative staff to better handle the patient base under a nationalized program. Practitioners do have the ability, however, to exclude patients from the P4P programs for reasons ranging from missed appointments to disagreement on treatments to the physicians discretion on medical issues (Hoanhami, Schrag, Malley, Wu & Bach 2007).

This practice, however, is still in its infancy in the U.S. A common use of P4P has been to streamline the efficiency of the practice of particular programs such as Medicare and Medicaid. Facilities and physician groups have also used P4P in an effort to boost quality while controlling and improving the quantity of said practices to benefit from higher reimbursement realization. When considering initiatives that have been part of the medical landscape for the past decade, there are many hurdles that still need to be found to achieve the goals of the P4P system. In a survey conducted by Rosenthal, Landon, Howitt, Song & Epstein (2007), found several physician concerns including patient dumping, overpayment and payment without quality improvements. Likewise, physician resistance, distribution of incentive pools and funding issues were identified as challenges while early involvement in health policy making and adherence were considered as major issues of a P4P system not moving from the ground level of development (Rosenthal et al. 2007).

Since being used as incentive based reimbursement, P4P has been linked with geographic regions in the U.S. In doing so, the use of Primary Care Physicians (PCP) and family care physicians has been at the fore-front of these programs as the staple provider of preventative care (Pizer, Frakt & Iezzoni 2009). Health Managed Organizations (HMO's) are used in these practices representing a large majority of physician and PCP utilizing P4P. This reimbursement system was part of the Deficit Reduction Act of 2005, which was used as an overhaul of the CMS programs; and in the Patients Protection and Affordable Care Act of 2010 (PPACA) (Rosenthal et al. 2006; US Department of Health and Human Services 2010).

Chronic diseases are diseases of long duration and slow progression. Chronic diseases, such as diabetes, heart disease, stroke, cancer, chronic respiratory diseases and many more, are by far the leading cause of mortality in the world, representing 63% of all deaths (World Health Organization 2011). In 2004, 133 million individuals or 50% of US people, lived with a chronic condition. By 2020, as the population's ages, the number will increase to 157 million (Johns Hopkins University 2004).

The purpose of this study was to determine the economic value, if any, of a P4P reimbursement structure, for those who have a chronic and/or managed medical condition in the U.S.

METHODOLOGY

The methodology for this literature review was conducted using a systematic search of key words that were relative to the content of Pay-For-Performance, value, managed care, chronic diseases and or disabilities. The terms used for research were "Pay for Performance" OR "P4P" OR "managed care" OR "chronic disease" OR "chronic disabilities," AND "healthcare cost." Publications that were either written or translated in English were used and the search was limited within the last 25 years.

To identify articles that were of the relevant matter, five databases were used to search for articles pertaining to this literature review and included PubMed, Ebscohost and Google Scholar search engines were explored for feasible content. Specific medical and economic journals and websites were surveyed for content relating to the topic including Health Affairs, The New England Journal of Medicine, European Journal of Health Economics, The American Journal of Managed Care, the American Medical Association and The Center for Medicare and Medicaid Services.

The literature review yielded 17 articles and 6 federal websites which were assessed for information pertaining to this research project. Only articles written or translated in English were used. Reviews, commentaries and editorials were used as well as primary and secondary data. The literature search was conducted by DC and validated by AC for this research study.

RESULTS

Norton (1992) studied in the 1980's determining the effects of an incentive program in nursing homes geared towards patients in the U.S. who utilized managed care facilities covering overall health status and Medicaid expenditures. Variables for financial incentives in this study considered hospital admission for patients that were sick, outcome of patients' health for prolonged stays at the facility and discharging patients in a timely fashion who did not require services. Norton concluded that death and hospitalization rates for patients were reduced while overall cost decreased approximately 20% for those in the intervention study group. However, there was an increase of nearly five percent on daily operation costs due to servicing a larger amount of patients (Norton 1992).

In New York, a P4P pilot program was assessed during 2003 to 2007 by the Hudson Health Plan, and it was focused on immunizations for children aged two and younger. The physicians had the opportunity to increase their annual income by 15% to 25% with reimbursement bonuses for increasing the amount of children treated (Chien, Zhonghe & Rosenthal 2010). While the immunization rates increased over the four year period, the study showed no change in the amount of children that were immunized who had chronic conditions such as asthma, epilepsy or cancer. Quality seemed to have little effect over quantity in this program, with reimbursement rates only rising slightly (Chien et al. 2010).

Lee, Cheng, Chen and Lai (2010) study was based on evaluating P4P programs and initiatives on the national level for patients receiving diabetes care in Taiwan. This study was compiled over a two year period and

took into account several facets including hospital and or physician visits, utilization and completion and medication regimens and the use of intervention and control groupings within the patients, physicians and facilities. The study concluded that although there was an overall savings of over \$100 per year per patient, the in-patient costs rise while costs with those who participated in the intervention groups was reduced. Therefore, as one cost rose, another decreased determining the initiative to balance itself out, providing little economic benefit (Lee 2010).

In 2006, Curtin, Beckman, Pankow, Milillo & Greene published a study dealing with evaluating the financial impact of P4P programs in diabetes care from 2003 to 2004 in the U.S. In this case, at the end of the year payments were considered based on annual physician measurements including efficiency, quality and patient satisfaction. To determine payout incentives, ten percent of capitation was withheld on a regular basis. The return of investment was calculated by insurance groups using filed data from two years prior to the study and compared with the years during the study to using reimbursement, cost and initial savings. The return of investment calculated was approximately 2.5 million dollars over this two year period (Curtin et al. 2006).

One study was conducted by CMS in 2006 with the Arkansas Department of Human Services. This particular study was based on the quality outcomes of patients who suffered from one chronic condition specifically Heart Failure and also Pneumonia. To qualify for the bonus payments, hospitals had to meet and perform in the 75th percentile when compared to the previous year's data [CMS, 2009]. In the first year of the study, Medicaid paid approximately \$3.9 million in bonus reimbursement to 21 hospitals that were considered high performance based on quality measures. In the second year of the study, the reimbursement levels were increased along with quality measures and performance rates with heart failure care rising from 61 % to 83 (CMS, 2011).

CMS, as of 2007, has several pilot programs that are considering the benefits of P4P in chronic care and disease management care situations. One of these programs consisted of nine states and private insurance companies participating where a base population was reimbursed for care provided to patients who suffer from congestive heart failure or diabetes, or both (Integrated Healthcare Association, 2010). Reimbursement levels were dependent on patient outcome and satisfaction levels on treatment from both the patient and provider viewpoint. This particular program has been considered for cost reduction and potential savings in these two areas of chronic care and disease management (CMS, 2005). Four other states have participated in another initiative to study cost effective and overall health improvement strategies when considering patients with congestive heart failure, diabetes or coronary artery disease in a fee-for-service reimbursement. A monthly payment for beneficiaries enrolled in the program has given provided there is a reduction in CMS cost as a result of services rendered for said conditions (CMS, 2005).

In 2010, the Robert Wood Johnson Foundation published a study determining the effects of chronic care in a primary care setting. The study was three fold incorporating practices that received bonus for meeting quality goals, had a third-party disease management care system staffed by nurses and had an onsite care coordinator who directly communicated between patients and physicians. The study took place from January 2004 to March 2007 in facilities that met the criteria in Alabama, Tennessee and Texas. The study found that care did improve overtime and patients were less likely to see a physician with follow-up complications, though care and incentives did not improve past the initial outlines of the study and there was no significant cost savings or increases for the facility or patients (Fangan et al. 2010).

The PPACA has had the opportunity to reestablish primary care as the lifeline of the CMS programs and medical reimbursement in a P4P system. However, it has proved challenging since its passage as PCP are physicians making significantly lower compensation than specialists. Specialists have had the opportunity to see a larger increase in quality and effectiveness in the care when compared to PCP's (Boyd et al. 2007).

DISCUSSION

The overall findings were based on economic studies on financial incentives and P4P programs and could not demonstrate effective improvements in quality or efficiency. Additionally it provided limited reimbursement measures and positive outcomes in cost effectiveness for the physicians, their group practices and the patients and insurance agencies. This concurs with Emmert, Eijkenaar, Kemter, Esslinger & Schoffski (2011) who found in several case studies above that while significant payout were measured with physicians participating in individualized studies and programs, the overall impact of the P4P system had little bearing on the reimbursement programs.

When considering patients with one or more comorbid disease, P4P, in the current structure, could lead to unsuitable or harmful diagnoses by degrading quality of care and not centering on the most important conditions. Take for instance clinical practice guidelines and a patient who has hypertension and hyperlipidemia, certain test and treatments might overlap, causing the physicians diagnosis only to be reimbursed for one disease (Pizer et al. 2009). While some chronic conditions can be treated in conjunction with others, using a combination of medication, this is not possible with all conditions. Such as taking anticoagulants to treat thromboembolic disorder while also suffering from peptic ulcer disease (Andreoli, Carpenter, Griggs, & Loscalzo 2007).

Several questions must be considered when conducting implementation or continuation of P4P reimbursement including: demographics and affluence between physicians, their practices, patients and certain regions on the U.S. as when considering patients from rural based population centers, physicians who practice in such areas might be less likely to benefit from P4P programs. Typically, patients of these areas have been less likely to be able to attend follow-up appointments due to circumstances out of the physician's control, such as lack of public transportation or the inability to continue treatment because of lack of affluence. Because of these simple reasons, quality and efficiency has been affected on reported data (Goodson 2010).

Another implication is that PCP family physicians have been strangled out of the market by higher salaried specialists. Additionally, if it is not possible to recruit new physicians into primary care because of a lower base salary and limited resources for incentive pay, the shortage of this field will continue, pushing much of the work onto the shoulders of physician's assistants and nurse practitioners. While these two professionals can be able to handle much of the load when it comes to primary care, there are still limitations in the scope of practice in each field.

On the other hand, public insurance programs, such as Medicare and Medicaid have not filled the gap on the federal and state level for those who might be considered the "working poor" or who are simply unable to be insured by private insurance companies and who do not qualify for CMS program. These programs do however pose a significant problem for those who suffer from chronic conditions, as these programs cover only a small portion of the necessary costs (Wilper et al, 2009).

CONCLUSION

When considering reimbursement programs for treatment involving patients who suffer from one or more chronic conditions such as diabetes, hypertension, congestive heart failure and coronary disease, P4P is not the best fee for service payment system. Though, in some instances, one or more parties are able to find an efficient, cost effective and quality insured basis for utilization, this reimbursement method needs to be studied further to find positive finding regarding the best care possible for chronic patients, especially those who require continued and continuous treatment care as a result.

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