

# A SWOT Analysis of Evidence-based Case Rates (ECRs): A Promising New U.S. Payment Model For Improving Healthcare Cost Effectiveness and Quality

Vanessa A. Rubano MPH, Christina Hope DiGioia MPH, Donna Pearce MD MS RN MPH Candidate  
Mailman School of Public Health Columbia University, 722 West 168<sup>th</sup> Street, New York, NY 10037 USA

## Introduction

- Given continuously rising healthcare costs, issues of poor quality, and limited access to care, current payment models are not able to meet the needs of healthcare consumers and providers.
- The current healthcare system is fragmented and relies heavily on Fee-For-Service (FFS), Capitation, and Pay-For-Performance (P4P) reimbursement models<sup>1</sup>.
- Evidence-based Case Rates (ECRs®) offer a potential solution by reducing costs, and increasing quality, access, health outcomes. ECRs® are a bundled payment applied to a specific diagnosis or procedure across the duration of specific time and cared for by a collaboration of health care providers<sup>2</sup>.

## Objectives

- To evaluate PROMETHEUS Payment®, the Model, as healthcare provider reimbursement model in the nation's largest provider of healthcare, the Center for Medicare and Medicare Services (CMS).
- Illustrate the Model's feasibility at the national level in light of Health Care Reform, and determine whether the Model could live up to its promise of paying for improved quality by avoiding expensive complications through the market forced collaborative care of evidence-based medicine.
- In conclusion, offer recommendations for the Model to enhance its potential as an alternative to unabated FFS for payment plans currently implemented for provider reimbursement.

## Methods

- Current literature was reviewed regarding payment models with respect to goals of health care reform concerning quality, access, outcomes, and costs of health care delivery. FFS, Capitation, P4P, Prospective Case, and bundled Episode-based reimbursement systems were compared. Internet published presentations of pilot demonstrations in different specific regional markets by the Model were examined.
- Conducted a structured personal interview with Francois de Brantes, Executive Director of Health Care Incentives Improvement Institute (HCII) which promotes the Model.
- A Strengths, Weaknesses, Opportunities, and Threats (SWOT) strategic management analysis was performed on the literature review and personal interview. The Model's internal strengths and weaknesses were compared to its external opportunities and threats from other reimbursement schemes.

## Results

Table 1. Summary Table of PROMETHEUS Payment @ Pilot Sites and Specialization

PILOT SITE	ECR SPECIALITY
HealthPartners, MN	Acute Myocardial Infarction
Crozer Keystone Healthcare System, PA	Hip and Knee Replacement
Employer's Coalition on Health, IL	Diabetes, Hypertension, Coronary Artery Disease
Priority Health, MI	Diabetes, Congestive Heart Failure, Asthma, Chronic Obstructive Pulmonary Disease, Colon Resection
New York State Health Foundation, NY	Launched two pilot sites evaluation will provide state policymakers with details information on wasteful spending.

Source: PROMETHEUS Implementations webpage

Figure 1. Knee Replace Surgery Comparing PROMETHEUS Payment ECR® against FFS reimbursement

COST OF TREATMENT		Under Fee-for-Service	
Under Fee-for-Service (with complications):	\$39,000	Under Fee-for-Service (assumes no complications):	\$24,000
Budget under PROMETHEUS (factors in potential complications):	\$28,000	Budget under PROMETHEUS:	\$28,000
Potential cost savings:	\$11,000	Potential bonuses:	\$4,000

Image Source: PROMETHEUS Payment Newsletter July, 2010.

The PROMETHEUS Payment ECR® accounts for the total care (i.e., diagnosis, surgery, pharmaceuticals and rehabilitation) and potentially avoidable complications (i.e. hospital acquired infections and complications due to pre-existing conditions.)

Figure 2. Key Results from SWOT Analysis



## Discussion and Conclusions

• Preliminary results of PROMETHEUS® pilot sites have been successful in demonstrating on average decreased costs and estimated to reduce by 5.45% between 2010 to 2019<sup>3</sup>. It encourages care coordination as defined by the Accountable Care Organization and also aligns with the Medical Home concept, which the Obama Administration cites as a path towards improving quality, access, and reducing healthcare costs<sup>4</sup>.

• The incentive system is monetarily based which fails to address potential team issues encountered in CMS where these patients are seen by multiple providers. Furthermore, operating alongside current payment schemes, i.e. paying out FFS up to a fixed predetermined budget<sup>2</sup> could result in providers taking on more risk than anticipated.

• Future confirmatory studies are warranted to compare the Model against other ECRs® and design ECRs® for primary care services. The disclosure claims data, used for the pricing the ECRs®, was originally intended for reimbursement, for the purpose of quality reporting has been proved to cause challenges with reliability and validity<sup>5</sup>.

• A significant investment in socio-techno-logistical infrastructure and the need for collaborative partnerships with payer and provider stakeholders are essential for a nationwide launch<sup>6,7</sup>. Relationships with large corporations should be leveraged to implement a strategy for scaling up and help attract KOLs who would promote the model to health care providers, gaining public trust and greater exposure for peer review.

• As a long term plan, the Model could be expanded to assess the appropriates of care delivered and begin marketing for nurse practitioners and physician assistants. This segmented market of healthcare professionals could be captured as the workforce demographics shift.

• Collectively these findings suggest that implementing the Model would increase quality, decrease cost, and in emerging trend of consumer driven care, the Provider Scorecard can aid in patients' constructing their own values indexes without eliminating choices<sup>2</sup>.

## References and Acknowledgements

- Mechanic and Altman. Episode payment is a good place to start. Health Affairs: 2009.
- Interview with Francois DeBrantes. November 26, 2009.
- Controlling U.S. Health Care Spending-Separating Promising from Unpromising Approaches. Hassey, Eber, Ridgely, McClynn, NEJM November 11, 2009.
- CMS. Physician Fee Schedule Overview. Listening Session: Defining an Episode Logic for the Medicare Population. 2009.
- Kongstvedt, Peter R. Ed. Essentials of Managed Health Care. (5th Edition). Reston, VA: Jones and Bartlett Publishers, 2007.
- Paying for Quality and Coordination: Aligning Provider Payments with Global Goals. Goldfield, Fuller, Averitt. AJMQ 2009.
- A Response to the Prometheus Proposal Well Intended but Impossible to Implement. Goldfield, Averitt, Fuller, Ventres. AJMQ 2008.

Would like to especially thank the Mailman School of Public Health and Prof. William Gold for support.