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Bundled Payment Models Miss Medicare Savings and Quality Objectives

Bundled payments are increasingly being criticized for not bringing about the predicted quality and cost-saving outcomes that were expected. These previously promising[1] outcomes, especially as relates to joint replacement, have been found by recent research to be relatively meager.[2] Further, there is no significant difference in *quality* realized when implementing bundled payments.[3] This *Health Capital Topics* article will review the recently-published studies regarding the quality and cost effectiveness of two major bundled payment models – the *Comprehensive Care for Joint Replacement* (CJR) model and the *Bundled Payments for Care Improvement Initiative* (BPCI) Advanced program.

Bundled payments, also known as "*episode-based payments*," are single payments for all healthcare services corresponding to a specific treatment or condition.[4] Healthcare providers who accept bundled payments from a payor assume the financial risk for all costs of medical services that exceed the bundled payment amount for the particular treatment or condition.[5] Bundled payments operate under the assumption that the model will incentivize providers to lower costs and reduce unnecessary services.[6]

The first modern incarnation of bundled payments from the *Centers for Medicare & Medicaid Services* (CMS) was the *Medicare Participating Heart Bypass Center Demonstration*, which took place from 1991 through 1996.[7] The short-lived test, which involved only four hospitals, showed promising results.[8] The hospitals in the program were able to significantly lower costs related to bypass surgery while maintaining quality.[9] However, later research into the demonstration project found that cost reductions actually came primarily from changes in the nursing management and pharmacy changes.[10]

In 2006, the bundled payment model gained significant attention when Geisinger Health System implemented its "*ProvenCare*" model, which packaged coronary heart bypass surgery into one bundled price.[11] The model proved much more successful than originally anticipated, and with extraordinary quality results.[12] Patients receiving services under *ProvenCare* saw a significantly shorter length of stay than patients not receiving care through the model.[13] The results of the program helped spur considerable support for more widespread use of bundling. Consequently, in 2008, the *Medicare Payment Advisory Commission* (MedPAC) requested that Congress implement a "*path to bundled payment*."[14] Following the recommendation from MedPAC, the 2010 *Patient Protection and Affordable Care Act* (ACA) required Medicare to reform post-acute service payment, which included the implementation of bundled payment models.[15] As a result of the ACA, which allowed CMS to test bundled payments through a new payment model, CMS created the *Bundled Payments for Care Improvement* (BPCI) Initiative.[16] The program tests bundled payment models on various treatments.[17]

In 2016, Medicare implemented the *Comprehensive Care for Joint Replacement* (CJR) model, which bundles payment for joint replacement surgery.[18] The model stems from the BPCI Initiative, which created four broad models of care wherein payments are bundled for a particular episode of care.[19] The bundling model was poised to make a swift and significant impact on healthcare costs because joint replacements are the most common surgery among beneficiaries,[20] and the cost and quality can vary significantly.[21] Historical studies regarding the effectiveness of the program showed that bundled payments lower costs while maintaining or improving quality for lower extremity joint replacement.[22] However, more recent evidence indicates that, in fact, the *only* type of clinical episode that results in cost savings is lower extremity joint replacement.[23] Further, the savings from lower extremity joint replacement may possibly be due to the favorable demographics of the population receiving the procedure, as they tend to be younger and have lower rates of poverty and disability.[24] Disappointingly, the cost-savings from bundled payments for lower extremity joint replacement is lower than what was predicted.[25] Significantly, the evidence now indicates that further extending the bundled payment program may actually work *against* Medicare's goals, because the achievement of savings varies by the timing of participation, with participants joining later making smaller gains.[26] Newer CJR participants may have joined at a later date because they lacked time, resources, or control over discharge practices, so the program only minimally benefited them once they did join.[27] The voluntary nature of joining allows for less commitment and less industry pressure and payor pressure to join, leading to the unequal implementation of institutional policies.[28] Finally, the evidence shows that Medicare's bundled payment system is only effective with unbridled patient selection, where

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providers can choose the healthiest patients for bundled payment.[29] However, positive early results from bundled payment programs encouraged CMS to pursue bundled payment models further.

In 2018, subsequent to the roll-out of the CJR model, Medicare announced the new BPCI Advanced Model.[30] The model expands upon the original BPCI model by increasing the number of episodes from four to 48 and taking into account more quality aspects.[31] However, if the current results of the voluntary bundled payment models are any indication, quality and cost improvement will be dependent on the complexity of the particular clinical episode.[32] Further research is required to fully understand if bundled payment models are practical solutions for highly complex medical conditions. Cutting costs by bundling payments simply does not work as effectively for non-orthopedic conditions.[33]

The nascency of bundled payment programs means that any evidence related to their foretold success is limited, if not indeterminate.[34] Further, the evidence that does exist reveals that more complex clinical episodes, such as spinal fusion procedures, are not associated with cost savings, largely due to the high patient complexity.[35] It does not appear that bundled payments will be the "*silver bullet*" for the fragmented and expensive U.S. healthcare system; rather, it is one of many tools that can be implemented to help bring costs under control. Nevertheless, continued implementation of bundled payments by private payors may lead healthcare organizations to better integrate into bundled payment models and create greater cost-savings for all.

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