A Comparison Study of Care Management Delivery Models on the Trajectories of Medical Costs among Patients with Chronic Diseases.

Care management is becoming increasingly offered in the U.S. as a means of helping patients better manage their chronic conditions and possibly avoid costly and burdensome healthcare due to chronic disease complications. Since care management can be provided in different ways and by different entities, we sought to compare different models of care management delivery in terms of their long-term medical savings. Evaluation of effectiveness of care management programs is very challenging, mostly because the benefits of care management activities such as patient education, goal setting, motivation and behavior changes are often gradually achieved over a long period after patients engage in care management. In this paper, we modeled the unknown form of the time-varying program effects using spline-based technique in Bayesian framework, where the number of knots and their locations were treated unknown and learned via reversible jump Markov chain Monte Carlo. We also incorporated a longer follow-up period which will provide more understandings to help policy makers and employer groups decide on their future investment in care management.