

Public Abstract

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Due to financial and political pressure, the atmosphere of healthcare is radically changing. In order to adapt to these changes, many healthcare systems are seeking to employ coordinated care programs to increase the continuity of care and population wellbeing. To sustain a coordinated care program and its potential benefits, it must prove to generate adequate savings to support the program's cost. In this thesis, a model is generated to determine the point of sustainability and the necessary cost reductions to achieve sustainability. The model is applied to the University of Missouri Health Care system to determine a reduction of admissions by 1.42% and holding the costs of 30-day readmissions, ED visits, outpatient observation stays, and urgent care visits neutral will generate adequate savings to offset the cost of the program for 10,000 Medicare and Medicaid patients. The model is then improved to determine the optimal number of care coordinators to effectively service the program's population, the cost of the program, and the savings required to sustain the program. This model generated an optimal workforce of 42.5 FTE at a cost of \$2.3 million, which would be sustained by a reduction of 3.34% of admissions and holding the other cost factors steady.