

# QualChoice Study Follow-Up: *Journal of Health Economics*

## Controlled Randomized Study of CareEngine® Proves the Cost Savings of Care Considerations.

A new study was conducted by Dr. James Rebitzer, chairman of economics at Case Western Reserve University and published in the *Journal of Health Economics*. The study results further evaluate and prove the clinical and financial benefits of the CareEngine System with a 2005 study published in the *American Journal of Managed Care*, which was conducted with a group of members from QualChoice, a Midwestern managed care plan.

### OVERVIEW

The impact of the CareEngine System, ActiveHealth® Management's sophisticated clinical decision support technology, was first published in a 2005 study in the *American Journal of Managed Care*. The original study was a 12-month, randomized, prospective investigation tracking 39,508 members of QualChoice, a commercial health plan. Study participants were randomly assigned to either a study group or a control group. CareEngine technology was applied to the data of members in the study group and their physicians received alerts. Member data in the control group were not analyzed until after the study was over, so their physicians did not receive alerts. At the conclusion of the original study, CareEngine technology was applied to both groups and the results tracked to determine causality between the physician alerts and improved clinical and financial results.

### BACKGROUND

The current study complements the results of an earlier study also designed to determine the impact of the CareEngine System. The earlier study,<sup>1</sup> published in *The American Journal of Managed Care*, found that, across that study population, there were 46 potentially serious medical errors identified per 1,000 people, 8.4 percent fewer hospitalizations and a cost savings of \$8.07 per member per month.



**ACTIVEHEALTH**  
MANAGEMENT®

**“The results in this study prove conclusively that the CareEngine System supports better care for patients and lower costs for payers.”**

—Lonny Reisman, M.D.,  
Chairman, ActiveHealth Management

### METHODOLOGY

Data for the study and control groups were collected for two years following the end of the QualChoice study, during which time CareEngine technology was applied to both groups, and all members’ physicians received CareEngine-generated alerts. At the end of the study, the new data were analyzed against the original data and the cost differential disappeared.

### RESULTS

	Control Group	Treatment Group
<b>CHARGES</b>	--	<p><b>\$21.92</b> average reduced PMPM charges    <b>6.1%</b> reduced costs</p> <p>Average PMPM charges (vs. paid claims) in the treatment group <b>were reduced by \$21.92</b> (6.1 percent) vs. control group</p>
<b>HOSPITALIZATION</b>	--	<p><b>95%</b> savings</p> <p>Due to decreases in inpatient charges and associated professional charges</p>
<b>CAUSALITY</b>	After the study, both groups received CareEngine services, and differences between the groups disappeared	

### CONCLUSION

The study demonstrated that medical best practices were followed at a greater rate, quality of care improved and costs were 6 percent lower when CareEngine alerts were issued.

**6%** reduced costs

<sup>1</sup>Study population consisted of 39,462 members aged 12–64 and with at least one claim in the prior year. Source: Javitt, et al., “Using a Claims Data-Based, Sentinel System to Improve Compliance with Clinical Guidelines: Results of a Randomized Prospective Study.” American Journal of Managed Care. Feb. 2005: 93–102.

Source of Case Study: Javitt JC, Rebitzer JB, Reisman L. “Information Technology and Medical Missteps: Evidence from a Randomized Trial. J Health Econ. 2008; 27(3): 585–602.



**ACTIVEHEALTH**  
MANAGEMENT®