

Innovative Coarsened Exact Matching Methodology Provides More Accurate Measurement of Chronic Care Management Program Savings Compared to Traditional Methods

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NASHVILLE, Tenn.--(BUSINESS WIRE)--Jul. 19, 2012-- Positive financial outcomes of Chronic Care Management (CCM) programs have been identified using an innovative, matching-based methodology entitled Coarsened Exact Matching (CEM), according to a new study released by *Population Health Management*, a peer-reviewed publication covering the clinical and business aspects of population health management. This study marked the first time that CEM was applied to a healthcare population in a CCM program. The CEM method creates matched comparison groups for outcomes evaluation and has broad applicability in healthcare comparative effectiveness research.

Conducted on 20,116 health plan members over a two-year period, the study found a greater and more accurate estimate of healthcare cost savings among treatment members matched using CEM than those matched with Propensity Score Matching (PSM), a traditional method that has been widely used, but may be limited in its accuracy. Researchers compared these two techniques for creating matched comparison groups for outcomes evaluation. The CEM method created more comparable groups and provided a more robust assessment of the outcomes produced by the chronic care management program. Compared with PSM, CEM retained more members, achieved better balance (comparability) between matched members, and resulted in statistically insignificant differences among the characteristics of the groups, indicating that the two groups could be used in a valid comparison for outcomes assessment.

The study examined CCM program performance in health plan members with at least six continuous months of plan eligibility in each evaluation year, who were between the ages of 18 and 64.9 and had one or more of the following chronic conditions: coronary artery disease, congestive heart failure, chronic obstructive pulmonary disease and diabetes. The treatment group was defined from this set of members as those who were fully insured and enrolled in the CCM program. Conversely, the comparison group was defined as those members selected ex-post-facto from the Administrative Services Only groups of the same health plan that did not choose to buy the CCM program.

“The results of this study show that CEM is an excellent method for measuring the value of well-being improvement solutions,” said lead author Aaron R. Wells, PhD, Center for Health Research, Healthways. “CEM was developed, validated, and applied in other scientific disciplines by leading academic researchers. We are excited to be one of the first research organizations to apply this technique in healthcare outcomes and comparative effectiveness research. Our analyses show that the technique provides a more accurate estimate of program savings, because the more sophisticated matching algorithms used in CEM produce more accurately matched groups for comparison. The end result is a highly credible outcomes analysis based on matched comparison groups. This technique greatly advances the state-of-the-art around measurement methods in this industry.”

The full study can be found by clicking [here](#).

About Healthways

Healthways (NASDAQ: HWAY) is the largest independent global provider of well-being improvement solutions. Dedicated to creating a healthier world one person at a time, the Company uses the science of behavior change to produce and measure positive change in well-being for our customers, which include employers, integrated health systems, hospitals, physicians, health plans, communities and government entities. We provide highly specific and personalized support for each individual and their team of experts to optimize each participant’s health and productivity and to reduce health-related costs. Results are achieved by addressing longitudinal health risks and care needs of everyone in a given population. The Company has scaled its proprietary technology infrastructure and delivery capabilities developed over 30 years and now serves approximately 40 million people on four continents. Learn more at www.healthways.com.

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Healthways
Kelly Motley, 615-614-4984
kelly.motley@healthways.com

