

Validated Analytic Framework to Evaluate Digital Health Interventions


Claims-based methods to assess cost and quality outcomes in Medicare-aged populations

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The cost impact of digital health interventions can be established by comparing outcomes from an intervention group to a propensity-matched comparison group using a “difference-of-differences” approach

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS																																														
<p>As health care expenditures continue to rise, policy makers and payers are assessing whether the cost of virtual care programs are justified by their outcomes.</p> <p>Ceresti has developed a novel, robust analytic approach and econometric model to assess the efficacy and overall value of virtual care programs.</p> <p>The methodology uses an administrative claims-based, analytic and statistical framework that accurately identifies and measures reduction in costs and services (including potential savings from avoiding other costly downstream events) attributable to deployed virtual care programs.</p> <p>The analytic framework and econometric model were developed for and validated in a pragmatic trial in a Medicare-aged population.</p>	<p>A total of 164 subjects were enrolled in the trial sponsored by a leading Medicare Advantage plan and Ceresti Health.</p> <p>The pragmatic trial compared changes in patient outcomes between program enrollees (DCEP “Care Recipients”) and a matched comparison group using a “difference-of-differences” approach.</p> <p>Matching criteria included:</p> <ul style="list-style-type: none"> • Age • Gender • Geographic region • Aligned index dates between Care Recipients and the comparison group 	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">DCEP Group</th> <th colspan="2">Matched Comparison Group</th> <th rowspan="2">Relative Difference %</th> <th rowspan="2">P-value</th> </tr> <tr> <th>Baseline</th> <th>Post</th> <th>Baseline</th> <th>Post</th> </tr> </thead> <tbody> <tr> <td>Total Medical Costs (PMPM)</td> <td>\$1,244</td> <td>\$748</td> <td>\$1,086</td> <td>\$1,255</td> <td>-55%</td> <td>0.0027</td> </tr> <tr> <td>Total Inpatient Costs (PMPM)</td> <td>\$513</td> <td>\$191</td> <td>\$456</td> <td>\$625</td> <td>-100%</td> <td>0.0028</td> </tr> <tr> <td>ED visits (PMPM)</td> <td>0.084</td> <td>0.045</td> <td>0.070</td> <td>0.066</td> <td>-41%</td> <td><0.05</td> </tr> <tr> <td>Inpatient Admissions (PMPM)</td> <td>0.053</td> <td>0.035</td> <td>0.045</td> <td>0.069</td> <td>-87%</td> <td><0.05</td> </tr> <tr> <td>30-day Readmissions (%)</td> <td>40.5%</td> <td>21.4%</td> <td>32.4%</td> <td>42.9%</td> <td>-80%</td> <td><0.05</td> </tr> </tbody> </table> <p>Health economists from the Validation Institute performed a comprehensive review of Ceresti’s claims-based study and found that members had lower medical claims costs over a 6-month period compared to a matched comparison group</p> <p>The analytic model detected statistically significant pre-, post-efficacy across health-related and economic outcomes</p> <p>REFERENCES</p> <p>https://www.digitaljournal.com/pr/ceresti-earns-certification-from-validation-institute-for-reducing-patient-healthcare-costs-through-digital-caregiver-empowerment-program</p>		DCEP Group		Matched Comparison Group		Relative Difference %	P-value	Baseline	Post	Baseline	Post	Total Medical Costs (PMPM)	\$1,244	\$748	\$1,086	\$1,255	-55%	0.0027	Total Inpatient Costs (PMPM)	\$513	\$191	\$456	\$625	-100%	0.0028	ED visits (PMPM)	0.084	0.045	0.070	0.066	-41%	<0.05	Inpatient Admissions (PMPM)	0.053	0.035	0.045	0.069	-87%	<0.05	30-day Readmissions (%)	40.5%	21.4%	32.4%	42.9%	-80%	<0.05	<p>The analytic and statistical framework developed for and validated in this pragmatic trial overcomes the challenge of attributing claims-based outcomes to virtual care interventions and contributes to the methods available to accurately measure the value of virtual care programs in Medicare-aged populations.</p> <p>Contact:</p> <p>Dirk Soenksen dirk.soenksen@ceresti.com</p>  <p>ALZHEIMER'S ASSOCIATION AAIC >22 ALZHEIMER'S ASSOCIATION INTERNATIONAL CONFERENCE®</p>
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