

## MEDai Response to SOA Study

MEDai, Inc. is pleased to have been invited to participate in the 2006 Society of Actuaries (SOA) Risk Adjustment Study conducted by Milliman. We are delighted with our performance in achieving the highest  $R^2$  and lowest Mean Absolute Predictive Error (MAPE) in several key modeling categories.

The SOA Study asked vendors to create models for 12 combinations of testing scenarios including:

<u>Models</u>	<u>Statistical Tests</u>
▪ Prospective / Concurrent	▪ R-squared
▪ Offered / Recalibrated	▪ MAPE
▪ Non-Lagged / Lagged	▪ Predictive Ratios
▪ With Prior Cost / Without	▪ Truncation Levels (None, 250k, 100k)

The study results ranked MEDai with the best statistics in 9 of the categories under evaluation in the study. **Best statistics** is defined as the highest  $R^2$ /lowest MAPE or a predictive ratio that is closest to one, depending upon the category.

There were a few other categories where MEDai provided a model but was not allowed to participate in the study. In addition, there were a few categories where MEDai was not allowed to even provide a model. For example, MEDai did provide *offered* predictions processed via a standard grouper just like other vendors; however the researchers did not report these results since they did not run the grouper. MEDai feels confident that with the *offered* predictions we would have had 6 additional categories with the best statistics based on internal comparative analysis.

MEDai currently provides ASP/Onsite and Standard/Customized predictive modeling services. The SOA study listed MEDai as a “service” vendor because during the study timeframe MEDai provided ASP models necessitating that the test data be processed at MEDai. For this reason, MEDai could not provide its concurrent model results since these are typically tested and processed on the same year data.

MEDai could have provided results for the *without prior cost* category in this most recent study but was not provided the opportunity since the researchers added this category on their own. As a standard practice MEDai uses all available data to ensure accurate predictions so we naturally used the prior cost data that was provided. We could easily have created models without making use of the prior cost data had we had the opportunity and we are confident that had we done so our results would have been as outstanding as they were with the prior cost data included.

MEDai was pleased with the SOA analysis and our results and we look forward to the next study.