



A Case Study: Using Predictive Analytics to Increase Enrollment in a Lifestyle Management Program

The Problem:

A lifestyle management company reaches out to its potential patients through its outbound call centers. During the introductory enrollment call, the patient is explained the benefits of the program and is asked if they would voluntarily enroll in a six or twelve month telephonic lifestyle management program.

The company is paid per enrolled member. The company wanted to investigate if enrollment could be improved through changes in call campaign logic – calling certain members on certain days or at certain times of the day.

The Solution:

A predictive model was built with the goal of predicting the outcome of the enrollment call for each potential patient. The predictor variables that were useful in predicting if an agent will successfully reach a member at a certain time of day included the member's age, gender, the number of health risks the patient had, and the incentive provided by their insurance company or employer for enrolling in the program. Using six months of historical data to test the model, the modeling error between the mean simulated enrollments and the actual enrollments was under 4%.

Of the predictor variables studied, incentive value played the most significant role in determining the outcome of the enrollment call – the greater the incentive the more likely the patient would enroll.

Leveraging the fact that all potential patients were best engaged during weekday evening hours, campaign logic was changed so that those with cash incentives of \$100 or greater were called during weekday mornings or Saturday afternoons. This reserved peak hours for those who do not receive a substantial cash incentive. In addition, Older women (age ≥ 60) were called on weekday afternoons, since they were determined to have a higher probability of enrolling in over other member profiles.

The Outcome:

Utilizing the campaign logic described resulted in an improvement in the enrollment call success rate by 5.5%, **which resulted in an additional \$1.4M of annual revenue.**

About Exceptional Outcomes:

Exceptional Outcomes is a consultancy with specialties in inbound and outbound call center optimization, operations research, business intelligence and process excellence. They deliver training and software applications to clients in both the public and private sectors.