

Predictive modeling: current practice and future application in North Texas Specialty Physicians

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About North Texas Specialty Physicians (NTSP)

- North Texas Specialty Physicians – known as NTSP – is an Independent Physician Association comprised of nearly 600 family and specialty doctors dedicated to delivering the best medical care to the residents of Tarrant, Johnson and Parker Counties in North Central Texas.

Current Predictive modeling

- 1. Logistic regression
- 2. Poisson regression
- 3. Variable selection
- 4. Case management

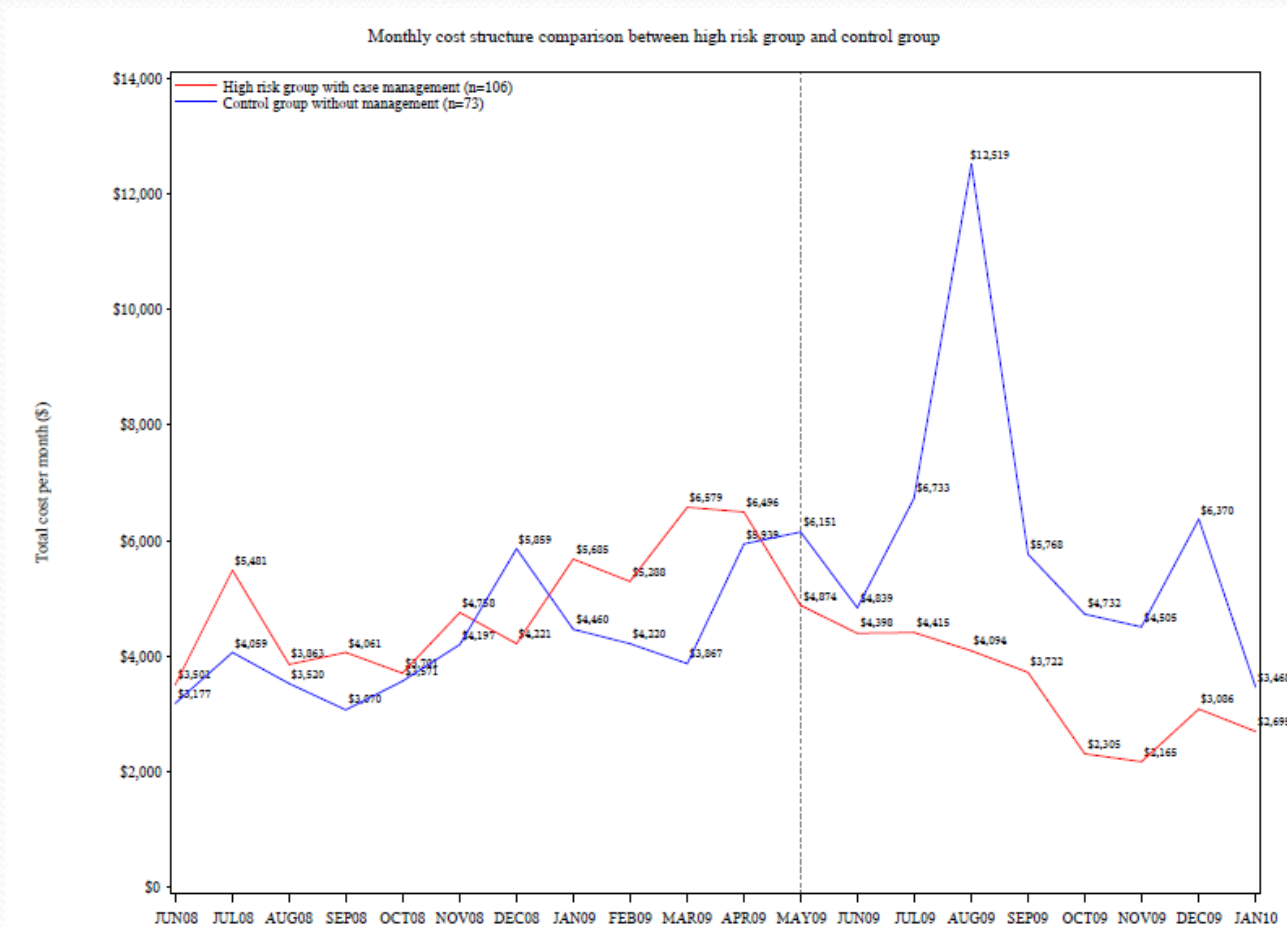
Concurrent Logistic regression and Poisson regression model

- Dependant variable: Hospital admission
- Demographic: age, gender
- Independent variables: chronic diseases, CAD, Asthma, Cancer, COPD.

Case management

- 1. Gordian Health Management Group
- 2. Strategies:
 - A. claims data;
 - B. model data;
 - C. pharmacy data;
 - D. Case management triggers

Performance



Problems and possible solutions

- 1. Nonlinear time series– time series neural network
- 2. Latent class growth model
- 3. Bayesian network

HIE and Statistical modeling

- 1. What is HIE
- 2. HIE and models in NTSP

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