ONE - MINUTE CLAIMS MANAGER- CLAIMS SCORING IN OPERATION

PREDICTING RETURN TO WORK WITH DATA MINING
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The following is adapted from an article written by Claim Analytics, an innovative start-up firm led by two Canadian actuaries. The company has developed a data mining model to assist in the complex business of managing long term disability claims that offers an interesting approach to prioritizing in claims management.

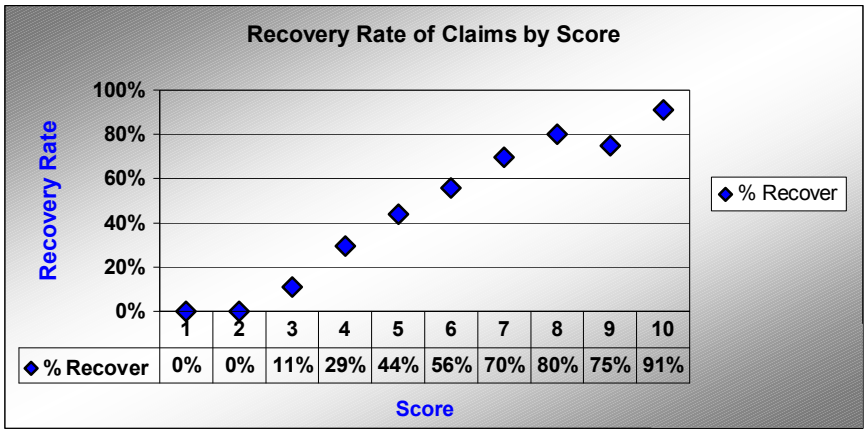
With the increasing importance of mental health as a factor in long term disability, and the increasing number and complexity of diagnoses, early intervention is becoming more and more important to claims management. Early intervention can offer claimants the attention and assistance they need, at the time they need it, to make a successful return to work. It can also prevent the slide into 'disability mindset,' the feeling that a claimant may begin to have that staying away from work is inevitable, and return to work impossible.

THE CLAIMS FILE
One of the major difficulties in practicing early intervention is the heavy demands it places on the claims management department. In a perfect world, every claim manager would have infinite time and resources and 100% objectivity. The reality of course is different. Claim managers have a great deal of information to go through before deciding which of their one hundred or more claims will receive priority and attention that day.

DATA MINING & CLAIMS SCORING
Claim Analytics uses data mining technology to create a claims scoring tool to help claims managers make the best choices available, and to optimize their use of available time and resources. By drawing empirical observations, based on historical behaviour, data mining tools succeed at accurately predicting human behaviour.

The Claim Analytics scoring system scores each claim with a number from one to ten, based on likeliness of return to work within a given timeframe, usually 6, 12, or 24 months. This score gives a claims manager a quick, initial assessment of each claim file she manages. It helps her to optimize resource allocation and to decide where to focus her time, energy and available support. By offering a classification for each claim, it also helps the claims supervisor to allocate caseloads effectively.

RESULTS
The proof is in the pudding – the most interesting discovery the model made was that it could, with accuracy, predict likelihood of recovery. Upon being declared ready for final testing, the model was fed the input fields for a dataset of historical cases whose outcome was known. The rising line of blue diamonds in the chart below shows the results of the blind test. A higher score (score shown on x axis, rate of recovery on y) was clearly linked to a higher rate of recovery. The model's predictions aligned very closely with real-life outcomes.



The rising line of blue diamonds in the chart shows the results from the blind test of the model. The model's predictions aligned very closely with real-world outcomes.

DIFFERENT ACTIONS FOR DIFFERENT SCORES

The score can be used as a factor in creating an overall policy for managing claims. For example, claims scored 4-7 might be afforded the highest level of time, attention and resources. Claims scored 8-10 would require a certain level of monitoring to ensure that nothing stood in the way of the claimant's recovery and return to work. Claims scored 1-3 could receive a similar level of attention to those scored 8-10.

One of the most powerful features of the scoring model is its ability to distinguish between 'grey area' claims, those claims that are neither particularly promising nor particularly unpromising. This is often a very difficult task for a claims manager. Yet it can be seen in the chart above that the model differentiates, clearly and accurately, in the 4-7 range. 'Fives' were more likely to recover than 'fours', 'sixes' than 'fives,' and so on. This differentiation may offer a claims manager assistance in deciding which claims in the 4-7 range would most benefit from extra time and attention.

One route that can be (and is being) taken by a claims department is to focus most attention on claims scored with a 4-7, and, within this group, to start with the claims scored with a 6. These claims have a good potential for return to work, but may not do so without the proper assistance, resources, and encouragement. This is where an intensity of intervention could offer the greatest rewards.

CONCLUSION

Claims management is neither a simple nor a routine task. Yet it forms an appreciable portion of insurance activity for most large insurance organizations, and many smaller ones. A means of assisting claims managers to improve return to work could be highly beneficial. The predictive powers of data mining can now offer assistance in this complex, critical area.