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Using Data Analytics to Drive Performance

Increasingly Important Role of Data in Workers' Compensation

Workers' compensation is intensely data driven. It is how that data is used to make decisions and take action that determines program success. Workers' compensation managers can assess historical information to isolate the types of accidents, the location of accidents, or physician practice patterns to identify cost drivers and isolate those areas that would benefit from a change in strategy or introduction of additional resources.

As technology capabilities have expanded, workers' compensation managers have had more data and information that can help explain what happened and why. More recently, they have been able to assess large amounts of information very quickly and efficiently to predict what is likely to happen in the future and even take steps and direct resources to affect the outcome of various situations.

Moreover, this discipline continues to expand rapidly with the advancement of artificial intelligence, machine learning, and automation. These tools enable users to look at current data to determine the best action to take right now. Business rules allow for automation when appropriate.

Employers are learning there is no single solution when it comes to using data analytics and information to drive workers' compensation decision-making. Instead, they are relying on the collective use of tools and technology to create a more complete and comprehensive understanding of past, present, and future events.

Identification of Data and Information Sources

One of the first steps toward the expanded use of data and information is to identify key sources of data. Critical information can come from adjuster notes. In turn, technology can isolate key terms or phrases that might indicate a claim has potential for escalation. Claims files and the aggregation of information can also be very valuable in strategy development. For example such information may indicate that the bulk of program costs

is attributed to the litigious area of a particular jurisdiction or state. Alternatively, a newly introduced production process may be causing a high number of a particular type of injuries, such as back strains. In other cases, pharmacy data from files may isolate physicians who are overprescribing drugs for injured workers leading to addiction, extended claim durations and higher costs. Additionally, industry data may allow for benchmarking assessments and comparisons of how well an organization is performing versus similar operations.

Evolution of Data Analytics and Information

A understanding of how quickly the world of data analytics has changed and the evolution that has taken place can also provide key insights for workers' compensation managers and shed light on how they can improve program management in the future. Descriptive analytics drove many program decisions for many years. Using historical loss data, claim characteristics could be isolated to develop a snapshot of key cost drivers. Examples of descriptive analytics include date, location, type of injury and body part. As technology capabilities expanded workers' compensation managers began to rely on predictive analytics. This was achieved by isolating patterns within the data to predict future events or outcomes. For example, if a claim exhibited particular characteristics, a prediction could be made early on that this case had potential for escalation and high severity. More recent big data technology advancements have been able to isolate patterns as to both potential problem and solutions. This has led to the growing use of prescriptive analytics and put even more powerful capabilities in the hands of workers' compensation professionals.

Lessons Learned

Those who are able to leverage big data and develop new applications will achieve increasing success. A great example of how information and technology have evolved together in recent years is the use of decision optimization. Decision optimization is another way workers' compensation complexities can be better addressed using technology and information advancements.

Decision optimization starts evaluating claims at the first report of injury and then continuously looks for specific data points as the claim progresses to ensure early intervention. Decision optimization is also better able to identify those claims that would benefit from case management or another managed care solution. The use of decision optimization has significantly improved the ability to more accurately identify when case management is needed. The decision is now based on methods that have been proven to provide faster intervention and reduce costs. Using technology advancements, decision optimization is one way to use data to make better decisions on when to deploy clinical resources and changing the projected outcome for the claim.

Summary

Wearables, advanced information platforms, and new medical technologies will continue to put more information in the hands of workers' compensation professionals.

Moreover, machine learning and artificial intelligence continue momentum in this area.

Being able to fully capitalize and leverage these rapidly expanded areas of data will mean a competitive advantage achieved by lower costs, increased productivity and improved worker satisfaction.