Fatigue Risk Management – It's all about the data

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Weston Analytics one of the leading fatigue risk management solutions provider, sat down with Dr Paul Jackson, a Chartered Psychologist and Fatigue Risk Management Specialist to get his views on fatigue management systems and the vital data they can provide.

Dr Paul Jackson, shares his thoughts below.

"It is sometimes said that a fatigue risk management system depends on good data. First, data to understand what is contributing to workforce fatigue, second, data to quantify the risk associated with these contributors and third, ongoing data collection to track how these contributors are impacting on operational performance, health and safety.

So, an organisation might first think about its standard operating practices and consider how these might contribute to an individual's fatigue. For example, a company conducting the majority of its work through the night is likely to have a number of associated fatigue contributors: perhaps night workers commence work having had insufficient rest; Are they undertaking safety-critical tasks during the window of circadian low (0200-0600), when our alertness is at a minimum; Are they driving home in the early hours after a

long, physically demanding duty?; And are they trying to obtain sufficient recovery sleep during the day, when alertness is high? These potential fatigue contributors should be considered by the organisation's safety team, who then need to quantify the risk associated with each of these potential contributors and ensure that they have sufficient controls in place to manage the risk. All of this is only possible with accurate, timely data.

For many organisations, the fatigue data they collect is limited to the consequences of fatigue, such as reports of being unfit for duty due to fatigue, or incidents and accidents where fatigue was a contributory factor. These organisations don't see any value in collecting more detailed data. But if we limit our data collection to incidents, we only identify fatigue when it is already having a significant impact on performance. This is a highly reactive approach to fatigue management.

Organisations that take a more proactive approach focus on identifying data sources that will give them early warning that fatigue risk is increasing. For these organisations, data is encouraged and welcomed and is seen as a valuable tool to help management make informed decisions. Fatigue data collection is not limited to the consequences of fatigue, but instead focuses on precursors to fatigue and data that can be used as safety performance indicators. Some examples of this more proactive approach to data collection include:

- Asking workers to rate and record their alertness at key points during a duty, using a standardised subjective rating scale, such as the Karolinska Sleepiness Scale.
- Collecting data on the amount of sleep obtained by workers before and after different types of duties and comparing this with the amount of sleep those same workers say they personally need to be rested.
- Encouraging workers to report general concerns about fatigue, not just when they are too fatigued to operate.

By encouraging a more proactive approach, an organisation can quickly collect a large amount of data, so that they are more informed about their fatigue risks. These data can be analysed to identify trends and also enable different parts of the business to be benchmarked against each other, or with similar organisations.

A good starting point is to have ready access to timely, accurate and reliable information about employees' actual work patterns and relating this to known fatigue contributors such as time of day, length of wakefulness and sleep quantity. Using a robust method to collect, record and analyse these data is a vital tool in the overall management of fatigue risk.

If you are interested in finding out more about our fatigue management solution visit our Fatigue360 page."

About Weston Analytics

Established in 2020, Weston Analytics is a technology company that creates and offers bespoke software as a service and business systems. The Weston Analytics portfolio currently includes Fatigue360, a fatigue management solution, Worksite360, a workforce management solution, and Enviro360, a waste

management solution.