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MEETINGS & EVENTS

BENEFITS TRENDS AND INSIGHTS 2019

Mental Health, Machine Learning, Virtual Care Focus Of Session

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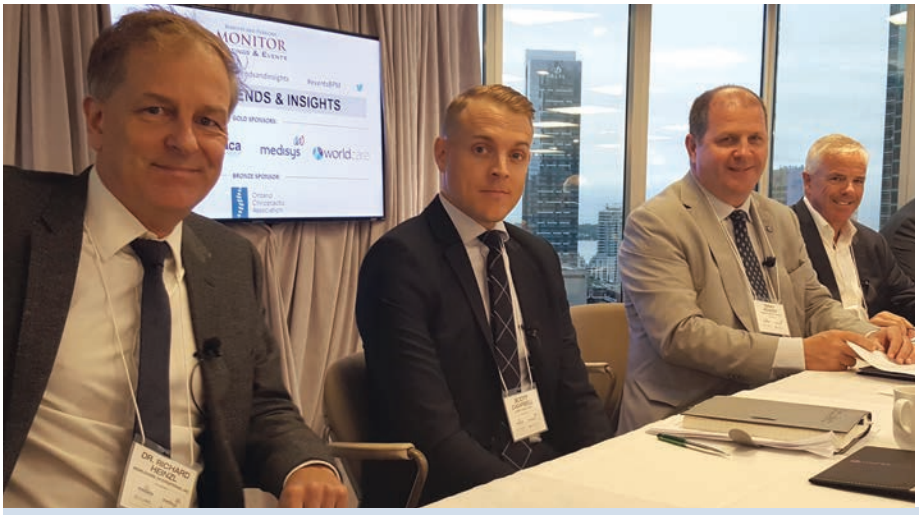
Mental Health, Machine Learning, Virtual Care Focus Of Session



From the left, Richard Heinzl, Global Medical Director for WorldCare International, Inc.; Scott Campbell, Manager, Plan Analytics at Cubic Health; Terry Power, Chief Executive Officer of Medisys Health Care; and Chris Anderson, Co-founder and President of Medaca Health Group discussed the importance of correct diagnosis when treating employee mental illness, machine learning to get deeper insights into managing claims, the rise and benefits of virtual care, and debunking five myths of workplace mental health treatment.

Four experts in the benefits field shared the stage at the *Benefits and Pensions Monitor* Meetings & Events 'Benefits Trends And Insights.'

Richard Heinzl, Global Medical Director for WorldCare International, Inc., opened the session discussing the importance of getting the diagnosis right when it comes to treating employee mental illnesses.

Scott Campbell, Manager, Plan Analytics at Cubic Health, then explained how machine learning may enable sponsors to get deeper insights into managing their claims.

The rise of virtual care as a treatment option and its benefits were the focus of a presentation by Terry Power, Chief Executive Officer of Medisys Health Group.

Chris Anderson, Co-founder and President of Medaca Health Group, then brought the conversation full circle as he debunked five myths of workplace mental health treatment.

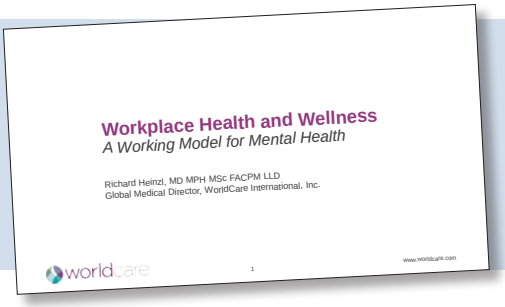
The burden of mental health and the resulting disability is enormous, economically and personally for people and their families, said Richard Heinzl, Global Medical Director for WorldCare International.

"We're all talking about mental health more; it's more normalized, we're decreasing the stigma," he said, citing surveys showing the level of stigma around mental illness is decreasing. "But even though it's more normalized, I don't believe we've really addressed these problems."

Lost Productivity

The cost to the Canadian economy of workplace mental illness is $51 billion in direct healthcare costs such as lost productivity. Absenteeism and presenteeism cost $6 billion directly and when you add in the other problems that go with mental illness – substance abuse disorders, physical disabilities, and chronic pain – this doubles or triples the cost. This means employers are going to spend $1,500 on mental illness for every employee in any given year.

To deal with the problem, "we wanted to go after it with a strong win/win with all the stakeholders – individuals, their families, and their communities – involved," said Heinzl, and back-to-work, in particular, was a focal point. There's a standard approach to what happens when somebody is on disability, he said. They're not well. They may see a therapist or a family doctor and then after six months of not getting better, they get to see a psychiatrist for 40 minutes. However, it's a little presumptive that someone they have never met before can actually understand somebody's life, no matter how well trained they are. They may pick something they think will work and, not surprisingly, the employee doesn't get better and the cycle starts again.



"We did what we always do at WorldCare – we went to The WorldCare Consortium®, which is composed of of some of the world's most pre-eminent hospitals," said Heinzl. Putting this in perspective, in Newfoundland, there's 40 psychiatrists in the whole province. At Mass General, one of the The WorldCare Consortium® medical second opinion providers, there's 600.

Throwing the rule book away and creating something completely from scratch, it started with the most difficult cases, people

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on disability for some time with a serious mental illness diagnosis.

The diagnosis was identified as absolutely crucial here. When patients do see a psychiatrist in a meaningful way, they can do a very deep dive and understand what's happening and come up with a very precise diagnosis. "That level of diagnostic clarity is vital because the research tells us what kind of therapy we prescribe and what kind of medicines should be prescribed all based on the research evidence and if you don't get that diagnosis right, you're likely going in the wrong direction," he said

Right Treatment

To confirm our approach, we carried out a modest pilot project, he said. While it only had 10 people in it, the approach returned six to work and put two on track to do so which confirmed the importance of getting the diagnosis right. "It's kind of scary to think that 70 per cent of the diagnoses were wrong," said Heinzl, and "if the diagnosis isn't right, you're not going to give the right medicine or the right treatment.

"It isn't that we can't do anything for those 500,000 Canadians who are off work today because of mental illness. We can help and we can have some significant success for them. It's just that it's a logistical problem in being able to not just do bits and pieces of treatment, but to do a giant reset on somebody – the human being who can't function, can't work. Giving them a complete comprehensive look at where they're going will have a big, positive effect if we do correctly."

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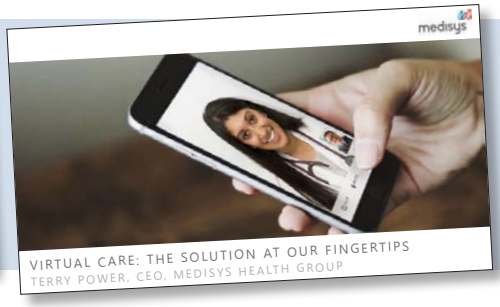
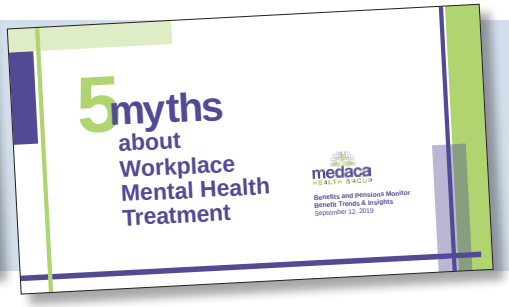
Any conversation on the possibilities of artificial intelligence (AI) and machine learning in group benefits begins with the importance of an internal data strategy and integrating clinically enriched data across benefit lines, said Scott Campbell, Manager, Plan Analytics, at Cubic Health.

AI within the group benefits space to date has been largely focused on member experience and improving operations – things like speech recognition in call centres and the development of digital assistants.

However, machine learning and broader AI offer the opportunity to have significant benefits with claims management. The focus to date has not been directly on the plan sponsor, but health and sustainability considerations of benefits plans require a plan sponsor focused approach. "We should just take a step back and make sure we're all on the same page with regards to defining machine learning and broader artificial intelligence, as it relates to claims management," he said.





Appear Intelligent

AI in general terms refers to software or hardware that exhibit behaviours that appear intelligent. Machine learning is the study of algorithms and statistical models that computers use to perform tasks without instructions. Mathematical models on sample data are built in order to make predictions or make decisions without being explicitly programmed to perform tasks.

One example of machine learning now is Google Maps, said Campbell. It considers the routes that everyone has taken over hundreds of days to determine estimated time to a destination and the fastest route in general. So it can take a driver on one route today to get to work and a completely different route tomorrow, all based on patterns.

From a disability or health management perspective, by assessing current claims data, machine learning could provide evidence-based recommendations a plan member could pursue with their healthcare team to optimize long-term outcomes.

The challenge is with the utilization of claims data today, many stakeholders are focused on the realm of reporting and machine learning can't be optimally leveraged without a comprehensive analytics infrastructure. It needs to sit on an analytics platform, not a reporting platform. "For that reason, we think that many stakeholders will need to make significant investments in areas like underlying tech infrastructure and underlying analytics infrastructure as well as invest in experts in the areas of analytics and data science and clinical experts who are well versed in medication management," he said.

Reporting – the process of organizing data in information summaries to allow for high level monitoring in terms of how various areas of a plan may be performing – differs from analytics which answer 'why' and 'so what' questions. Analytics explores data and reports to extract deeper insights that can be used to develop an understanding of high-level trends and plan performance and can be used in overall strategic planning decisions.

Data augmentation and clinical expertise are additional layers on top of raw claims data that are required before the capabilities of machine learning can be layered on. An organization cannot succeed in leveraging machine learning in managing benefits by simply adding data science expertise. There is a need to properly clinically augment data before the true value can be realized.

Machine learning makes it possible now for plans to quantify the prevalence and severity of all chronic and acute conditions within their specific plan population. They can then leverage the demographic and disease state profile to run a series of comprehensive pre-

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Richard Heinzl,
Global Medical Director, WorldCare International

Scott Campbell,
Manager, Plan Analytics, Cubic Health

Terry Power,
Chief Executive Officer, Medisys Health Group

Chris Anderson,
Co-founder and President, Medaca Health Group

dictive analytics to determine where plan costs are likely to go under the current design. They can also identify and quantify all co-morbid conditions at an individual claimant level and, moving beyond just drug claims data, they can integrate and enrich data at a claimant level across benefit lines which commonly use very disparate classification systems. Doing so means a comprehensive claimant level profile can provide a much deeper understanding into the overall health and wellbeing of a plan population.

Profound Opportunities

While there are profound opportunities, he said, there are also significant roadblocks to the widespread utilization of machine learning. Data quality is the biggest and it has actually decreased over time as the volume of claims has increased and there continues to be a lack of data standards across the industry. In addition, data is of limited value without a significant amount of clinical enrichment beforehand. Furthermore, many plans use multiple service providers who lack common encryption keys that would allow for more seamless integration of these different data sets.

The bottom line with roadblocks or barriers to machine learning is that garbage in equals garbage out. "If you're focusing on a data set that has not been clinically enriched, then it's very unlikely that machine learning would produce much in the way of meaningful insights," he said.

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The conversation around virtual healthcare has changed rapidly in recent months, said Terry Power, Chief Executive Officer of Medisys Health Group. Those within the employee health and benefits industry have gone from asking what virtual care really is, to how it can fit into the employee health experience. Several of Canada's leading benefits carriers are now offering virtual healthcare solutions, and many benefits advisors are partnering with leading platforms to bring virtual care to companies with tens of thousands of employees. So why are we seeing such a speedy shift with virtual care adoption?

"In short, Canadians are faced with systemic problems within traditional healthcare and virtual care is a tangible solution for many of them," said Power. For example, there is a limit to the number of patients that a family physician can take on and, as a result, millions of Canadians don't have one. For those who do have a family doctor, it can be difficult to get a timely appointment, so patients across the country are showing up at already-overcrowded emergency rooms with non-urgent issues like prescription refills or common colds.

Virtual Care

While it doesn't solve everything, virtual care allows Canadians from coast to coast to connect with medical professionals 24/7/365. "We're seeing that most non-complex concerns – from stress and dermatology to respiratory issues and injuries – can be effectively addressed through virtual care platforms," he said. The result is a major reduction in absenteeism and presenteeism and a significant boost in employee health engagement.

However, the impact of virtual care goes beyond mitigating absenteeism and presenteeism to solving non-urgent injury issues too, says Power. When an injured employee leaves work to get assessed at an emergency room or by their family doctor, they may line up for hours or wait at home for days to see their doctor. Virtual healthcare can facilitate nearly-instant diagnoses while employees stay at work.

It's also easy to implement. Signing up on a virtual care platform can take just a few minutes, and some platforms cover spouses and families too. "With Medisys On Demand, we're solving a lot of child-related issues like rashes without the need for an in-person appointment," said Power.

So how is virtual healthcare currently being implemented?

The most common implementation is a per employee, per month fee model and the utilization rate is considerably greater than with an employee assistance plan (EAP). Power noted with the Medisys On Demand product, employee utilization is north of 30 per cent within the first 90 days and then settling closer to 50 per cent, whereas EAP utilization is sitting around just five to seven per cent.

While virtual care is relatively young, the data is very promising. "We know, for example, that employees are no longer leaving work to get a prescription filled. We also know that 30 per cent of the consults that take place on our platform are mental health-related. The concepts are far more believable and sellable now than they were just last year," said Power.

It's important to note that there will always be issues – like opioid prescriptions, complex diagnoses, and emergencies, for example – that require in-person consultations. But Power said upwards of 90 per cent of the issues that get brought up inside Medisys On Demand are dealt with in a meaningful way.

Fast Diagnosis

Moreover, virtual healthcare not only

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provides fast diagnosis, but follow up care as well. For example, someone who gets a prescription for a new drug will be followed up with by the virtual healthcare provider to ensure the new medication is working. From a mental health perspective, Power said, often times an initial virtual consult progresses into a conversation about anxiety and stress, which the virtual provider will continue to follow up on to ensure continuity of care.

"Especially when considering that Canadians wait an average of two to six days for an appointment with their family doctor, virtual healthcare is a revolutionary solution, offering bilingual, rapid access to medical professionals," said Power. "Our view is that virtual care is not an eWalk-in clinic, but a new model for providing preventive care while helping plan sponsors deal with the issues that most contribute to absenteeism and presenteeism."

Chris Anderson, President of Medaca Health Group, outlined five myths about mental health treatment. These myths must be addressed so treatment is an effective component of workplace mental health strategies.

- **MYTH 1 – Awareness has solved the Treatment Problem**

Anderson said he considers Canada's awareness and anti-stigma programs some of the best in the world. However, "ironically, our success at awareness programs has increased demand for treatment, making access more difficult," he said. There is a serious supply and demand crisis which will make this even more difficult over the next five years. From a supply perspective, there continues to be a shortage of psychiatrists which has led to wait times far above those for other illnesses. The situation is not likely to improve. The Canadian Medical Association's annual survey of psychiatry shows 50 per cent of Canada's psychiatrists are approaching retirement age.

At the same time, demand for treatment services is increasing. Employees continue to hesitate identifying their illness to an employer because they believe this would have an impact on their career. However, this number is declining steadily as awareness improves. One survey shows this dropping from 77 per cent in 2014 to 67 per cent in in 2018 and could reach 57 per cent by 2022. With 500,000 people off work today with a mental illness, this increasing willingness to report illness at work will put even more pressure on the system.

This means the resources now available must be managed well. The right professionals – psychiatrists, psychologists, therapists, and, most importantly, family physicians – need to be involved at the right time.

- **MYTH 2 – Family Physicians are the Weak Link in Treatment**

This is false. Two-thirds of all mental health cases are seen by family physicians. Studies show that diagnosis and treatment can be inconsistent and result in higher illness durations than necessary.

However, family physicians are not to blame for this situation. Unfairly, they're expected to be the frontline, but have very little back up from psychiatrists, largely due to the psychiatrist shortage in Canada today. "It's like asking a family physician to perform two-thirds of the care for people with heart disease, without the assistance of a cardiologist," said Anderson.

What is needed is using resources more efficiently. For example, stronger collaboration between family physician and psychiatrist about the best possible treatment is needed. In fact, since Medaca started in 2005, physicians and psychiatrists have collaborated to ensure treatment is implemented and the employee returns to health and work quickly. This is an important and unique component of its service.

- **MYTH – Psychotherapy and psychiatry are mutually exclusive**

Treatment integrating both modalities will be the future gold standard of workplace mental health. Medaca has a pilot initiative with Medavie Blue Cross to test this model. It brings together and properly sequences psychiatric and therapeutic care so they can be managed simultaneously to help the employee recover as quickly as possible.

- **MYTH 4 – Telepsychiatry is inferior to face-to-face care**

Telepsychiatry has hit the mainstream in other countries. In the United States, it has developed into a multi-billion dollar industry. Canada has made strides, but the technology has developed much more slowly due partly to a perception that telemedicine is not as effective as face-to-face care.

However, research into the efficacy of telepsychiatry has found it to be equivalent to face-to-face care. Telepsychiatry is also well accepted by patients – some may actually prefer it to in person treatment.

- **MYTH 5 – TREATMENT is not my issue**

Finally, there is the myth that treatment is not an employer or insurer issue. "Employers don't believe they can have an impact on treatment. However, more and more, they are realizing they have to find ways to work with insurers and healthcare organizations to get access to treatment options." **BPM**

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