



Companies have long invested in leadership training, but a pioneer in 'precision medicine' says it's time to invest in health training, too.

Interview by Karen Christensen

You have been called a trailblazer in the emerging field of 'precision medicine'. How do you define that term?

Precision medicine is becoming more commonplace and better defined. It's a scientific approach to creating a personalized health action plan to treat — and more importantly, prevent — disease. We collect all the data about a person's genetics, biomarkers and lifestyle so we are better able predict and design the best strategy for achieving their health and wellness goals.

For example, with cancer treatment in the traditional system, a tumor is discovered, studied and the appropriate chemotherapy is assigned. Then various markers are checked over time to see how the patient is progressing. It's all very precise and science-based. I'm asking, Why don't we apply this same precise, science-based approach to prevention and early-onset screening?

I always use the example of vitamin D. Many people are genetically predisposed not to produce enough of it, and before you know it, many are diagnosed with osteoporosis. In the traditional approach, you would only measure vitamin D levels once you discovered someone had low bone mass. But it's late by then! Similarly, metabolic syndrome is a precursor for prediabetes and diabetes, and there are hormone markers that can detect pancreatic cancer early. We should be using these tools ahead of time.

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In the realm of mental health, psychiatrists are always surprised when I tell them we can measure serotonin — our 'happy hormone.' When it is low, it increases your probability of developing depression. And GABA is another hormone that, when low, indicates a higher probability of developing anxiety and panic disorder. I'm not saying having high GABA and taking GABA supplements will prevent you from having panic attacks, but it will definitely move your threshold up.

Over the past few years, stress has been rampant. Can you describe your own experience with PTSD?

The pandemic has impacted each and every one of us, affecting our physical and mental health in ways that are both obvious and invisible. For me, it triggered an earlier trauma: the SARS epidemic. What really pushed me over the edge was watching doctors and nurses having to re-use their masks and gowns and even make them out of garbage bags. I spent many nights in tears because I remembered how incredibly stressful it was when I worked at **Trillium Health Centre** during SARS. Hearing doctors say they were sleeping in their cars to protect their families triggered memories of all the things I had to do during SARS, like draw up my will and sleep in a separate bedroom from my then-husband. It's amazing how new events trigger old events. At night, I would dream about running from one hotel room to another to help take care of the residents, or being in a convention centre going from bed to bed caring for people. That's how my PTSD manifested itself.

What made you decide to write a book about all of this?

When COVID-19 hit, I was no longer doing front-line medicine, but I wanted to contribute to the recovery. I felt the best thing I could do was write about my current focus on prevention. I made the decision to write the book in November of 2021, when the Delta variant was prevalent. At the time I was helping my clients manage COVID inside their organizations. A lot of people are going to need help figuring out how to take care of themselves after this pandemic becomes fully endemic.

Why is it so important for people to return to the office, even for a day or two per week?

We are social animals, and the lockdowns caused many of us to experience social isolation. A lot of seniors in nursing homes didn't die from COVID, they died from loneliness. They became depressed and decided to stop eating and drinking because life just wasn't worth it anymore. It was so tragic. And children were out of school so much that social reintegration became difficult for many.

As adults return to work, many will still be experiencing the impacts of the pandemic's micro-traumas — not just from the fear of catching COVID, but from figuring out how to feel safe working with colleagues and from changing the routine they've developed over the past two years. The fact is, for many, their work-from-home routine was far healthier than their office routine. In terms of our health, we might all be better off with a hybrid workplace. Most organizations will do just fine working in a hybrid way, but for others — like the creative agencies I've been working with — people need to be able to literally sit down and create things together. The best solutions will depend upon the workplace and the type of work people do. In precision medicine, one size does not fit all, and the same is true of the return-to-work strategy for different workplaces. The workstyle should match the culture and the type of work.

Based on your experience, what is the best approach to achieve mental wellness?

Physical health and mental wellness are very much integrated. We've been hearing more and more about the gut-brain connection; most people are aware that the gut biome exists, but they might not know that most of their serotonin is made in the gut. Some serotonin is made in the brain, but most of it is from your gut. Without a healthy diet, your gut won't be healthy and you won't produce enough serotonin. In addition to diet, exercise is critical to both physical and mental wellness, and we have to do it consistently. Over time, this will stimulate your brain's reward system and you will get endorphins that make you feel satisfied. The third key to mental wellness is sleep. It improves your

testosterone levels, which prevents you from feeling tired and achy, and it helps boost your cortisol level, which is your stress-response hormone. This helps prevent you from burning out due to stress.

Going forward, what can we do to build our health resiliency in case something like this happens again?

In business, there is usually a rainy day fund or ‘cash reserve’, but we don’t talk about creating a ‘health reserve.’ If COVID has taught us anything, it’s that we need health reserves to keep our bodies at peak health. We all need to get in the habit of knowing our numbers and keeping an eye on them. Blood pressure and weight are the two most critical markers, but you also need to have good metabolic markers to ensure you’re not pre diabetic and that your hormones and nutrients are in balance.

The good news is, we can measure all of these things. But for the most part, we don’t have the mindset to pay attention to this in our culture. Society expects leaders and peak performers to go, go, go until they have nothing left. It’s a badge of honour to say, ‘I only need to sleep four hours a night to function.’ But we know from cognitive studies that people get chronically stressed due to lack of sleep and poor diet, and their mental clarity is not optimal. I advocate for including health as a key leadership competency. If organizations want to be successful, they should be fully invested in the health of their leaders and include health competencies in their training.

Most people know they need to track their blood pressure and weight, but what are the top three lesser-known biomarkers that we should always be aware of?

The first one is easy to get your GP to do, and that’s your A1C. It looks at the sugar coating around your red blood cells to make sure it’s not jumping up and down. The higher your A1C, the greater your risk for developing Type 2 Diabetes. This can be done with a simple finger prick.

The second one is of particular importance for productivity, and that is your cortisol level. Very low cortisol means you’re totally burned out, and when it’s super high,

you’re stressed. A saliva sample is enough to test for this.

And the third important thing is mental health markers. A urine sample can be used to test for serotonin and GABA markers. If these are at good levels, it protects us from a negative stress response and tipping over into depression or anxiety. Those are my big three. A nice-to-have would be to make sure that all our nutrients are in good shape, because that is our gasoline. If you don’t use the right gas, the car won’t run properly.

Talk a bit about the links between peak health and workplace productivity.

I look at high-achieving people like **Tom Brady** or **J.Lo.** — elite athletes and entertainers who maintain an extremely high level of fitness and youthfulness by following highly disciplined lifestyles. They don’t drink alcohol or eat empty carbs. They sleep well and exercise regularly. And they know this makes them more productive.

It’s the same in the workplace: Healthy employees don’t get sick as often, so they have lower rates of both absenteeism and presenteeism (when someone is at work but not productive.) When people miss work, not only do you have a productivity issue, but someone else has to cover for them. People who are overweight and obese have much higher incidents of absenteeism, but more importantly, it has been shown that they also have higher incidence of mental health issues. If leaders want peak productivity, they need employees who are healthy and fit both physically and mentally. Organizations invest a lot in leadership training, and they need to start investing in health training and education, as well.

As a leader, what key lessons has the pandemic taught you?

COVID taught us all that when a crisis occurs, it’s too late to say, ‘I wish I had been more prepared.’ This applies to business operations as well as to individual health. During the pandemic, those who were obese or had high blood pressure, diabetes and cardiovascular disease and then caught COVID generally had worse outcomes. And we also

learned that people who had high levels of anti-inflammatories from a nutrition point of view — like vitamin D and omega fatty acids — had a *lower* risk of ending up in the ICU. We also need people to be better prepared mentally to deal with stress so they're not reaching out for alcohol and prescription drugs to deal with things. We saw a lot of that. People drank more and prescription drugs for anxiety and depression just skyrocketed.

The second lesson was that if you don't get clear communication and narratives flowing through your organization, you're going to be swimming upstream. Most C-suite executives weren't used to talking about people's health and safety, so there has been a steep learning curve. Many rose to the occasion with frequent, clear messaging, and that should continue.

A third key lesson is that it's very important for companies to be proactive and more ready for a crisis. Business

leaders need to know how to leverage the science, because when something like this happens, it really is an ESG issue. If you don't support your employees' physiological and emotional well-being, not only are you going to face absenteeism and presenteeism, but retention is going to be an issue. **RM**

Dr. Elaine Chin (Temerty MD '88, Rotman MBA '94) is author of *Welcome Back! How to Reboot Your Physical and Mental Well-Being for a Post-Pandemic World* (Sutherland House, 2022), which is a Top 10 Indigo Recommended Wellness Book of the Year. At the start of the pandemic, she helped raise more than \$250,000 to secure and distribute PPE, safe housing for hospital residents and research into COVID-19 treatment at the University of Toronto. For this work, she received the Arbour Award, which recognizes impactful U of T Alumni.

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