

THE FUTURE OF HEALTHCARE: PERSONALIZED MEDICINE



Prediction: By 2025, personalized medicine –specifically pharmacogenetics – could allow patients to receive the right care, the first time, based on their unique genetic make-up.

The Canadian healthcare landscape has been somewhat stable the past 40 years, but the coming eight years are expected to bring unprecedented disruptions – and opportunities. Employers can expect continued negative pressures from [rising healthcare costs](#) – especially specialty drugs – and resulting cutbacks in support by government.

On the upside, however, the healthcare market will experience some of the most dramatic innovations in drug therapy. These will not only enhance patient care and outcomes but could help contain costs for employees, employers, and public entities.

Leading the way will be personalized medicine, which has the potential to transform medical innovation, enhance prevention, more accurately diagnose diseases, and allow for safer, more efficient treatments.

WHAT IS IT?

Personalized medicine is a form of healthcare that uses information about a person's genes, lifestyle and environment for disease treatment and prevention, according to the US National Institutes of Health. Pharmacogenetics is an example of personalized medicine, and allows healthcare providers to be able to select the right drug treatment protocol, and where applicable, the most effective medicines based on a patient's genetically determined response to drug therapies.

HOW DOES IT WORK?

Pharmacogenetic testing can be as simple as taking a saliva swab and submitting the sample to a lab, which incorporates his or her personal

genomic information into a patient clinical assessment, including family history. This process will guide medication prescribing and management to be safer with few side effects and with more effective health outcomes and ultimately help the health care system be more cost efficient.

Personalized medicine, including pharmacogenetics, has limited use today but has impressive future promise. In the future, a consumer may be able to receive treatment for ailments and even diseases based on their genetic profile and diagnostic results from data received from wearable or even sensory devices. For minor cases, their data could be sent to the pharmacist, who can work alongside the treating physician to prescribe the most effective and cost-efficient medicines.

WHY IS PHARMACOGENETICS NEEDED?

Prescription medicines account for a growing share of total healthcare spending, in particular, specialty drugs that can cost hundreds of thousands of dollars per person annually. According to Express Scripts Canada's *2015 Trend Report*, overall healthcare spending has leveled off, but the cost of specialty prescriptions is up 18.6%. Plus, Mercer is predicting a return to double-digit overall medical inflation. Pharmacogenetics will help ensure that a health plan and/or patient saves precious time and money by receiving the right drug, the first time. In addition, this will help workers spend less time away from work.

CASE STUDY: PHARMACOGENETICS AND MENTAL HEALTH

In the September 2015 issue of *Benefits and Pensions Monitor*, Dr. Michael Prouse tells how pharmacogenetics will enhance mental health care and has the potential for substantial savings in healthcare costs in Canada. About one in five Canadians suffers a mental health condition, which costs Canadian businesses about \$16 billion annually from absenteeism and disability. He says that about half of the prescribed psychiatric medicines won't work on first, and sometimes second, tries. Rather than expend time and limited money, a person's unique genetic profile can be used to determine their probable successful treatment.



WHAT YOU CAN DO

Yes, the coming years will bring unprecedented disruptions, but imagine a new world in which every individual have his or her own personalized medicine and treatment protocols. It's not that far off, and we can help you make tomorrow, today.

For those who wish to get started now, and remain ahead of the curve, consider the following:

- [Understand your workforce](#) – today and tomorrow
- Proactively manage cost/risk
- [Understand the evolving vendor market](#)
- Leverage technology and innovation

If you do all these things, you will not only manage your costs but will deliver a better value proposition to your employees. And, you don't have to go it alone; We are here to help. It's complicated, which is why we have dedicated people working to make these futuristic visions reality, today.

[CONTACT US TODAY TO DISCUSS THE FUTURE.](#)

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