Are Your Employees Healthy?
Chronic Disease is Endemic in Today’s Workforce

If one were to look only at our collective investment in health care, one would think that we live in an era of unprecedented wellness. Of the 34 countries comprising the Organization for Economic Cooperation and Development (OECD), on average 9.3% of GDP is spent on health care, with the U.S. topping the list at 17%. In 2014, Canada spent about $214B on health care, representing about 11% of GDP. In many countries, the growth in health care spending is greater than that of the overall economy.

Yet, the health profile of the typical adult – and thus the typical worker - reflects a much different story. Chronic disease – the four most common being cardiovascular disease, diabetes, cancer and respiratory disease - currently affects 125 million American adults, and the prevalence is expected to grow by another 37% between 2000 and 2030. Sixty percent of Canadian adults have at least one chronic disease. The prevalence of chronic disease is growing at 14% per year, and is growing faster among working age adults (i.e. those under 64 years old) than in those who are older.

Chronic disease is becoming more prevalent in part because more people are overweight and obese. In the U.S., 1/3 of adults are overweight, and another 1/3 are obese. The prevalence of overweight and obesity in Canada is 36%, and 24% respectively, and has grown four-fold since 1990. The OECD average for obesity prevalence exceeds 18%, and continues to raise. Overweight and obese people more likely to develop chronic disease, including type II diabetes, hypertension,  

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cardiovascular disease, sleep apnea, cancer, and osteoarthritis\textsuperscript{10}. Overweight and obesity are now the second most prevalent cause of preventable death in the U.S., mainly because they predispose people to high blood pressure, high cholesterol and diabetes\textsuperscript{11}. Even at the global level, excess weight is now a greater health concern than malnutrition or underweight\textsuperscript{12}.

Closely linked to the raising overweight and obesity prevalence is an increasingly sedentary life style. While just over half of Canadian adults consider themselves to be physically active, studies using accelerometers indicate that only about 15\% of adults achieve WHO and Canadian activity guidelines of 150 minutes of moderate to vigorous physical activity (MVPA) per week, and only 5\% do so by achieving at least 30 minutes of MVPA per day, five days per week\textsuperscript{27}.

For those adults that do not have a chronic disease, most have one or more risk factors. For example, almost 60\% of Canadian adults currently have cardiovascular disease, hypertension and/or diabetes\textsuperscript{5}, and nearly 90\% of Canadians adults have at least one risk factor for heart disease and stroke\textsuperscript{6}. With each additional risk factor, the risk of developing cardiovascular disease increases significantly.

**Chronic Disease is Already Affecting your Employees**

The ultimate consequences of chronic diseases like cardiovascular disease and diabetes - including loss of function, loss of sensation, fatigue, (CV disease)\textsuperscript{13}, blindness, kidney disease, amputation, (diabetes)\textsuperscript{14} – often occur near or after typical retirement age. However, in many cases, they have already started to compromise your employees’ mental health,
family dynamics, and finances.

Chronic disease predisposes people to depression, bipolar disorder, and anxiety\textsuperscript{15}. While the baseline prevalence of these affective disorders is about 6\%,\textsuperscript{16} it rises to 17\% for those with cardiovascular disease, 27\% with those with diabetes, and 42\% for cancer patients\textsuperscript{17}. Compared to mentally healthy individuals with chronic disease, those who have both mental health disorders and chronic disease have poorer outcomes and are more likely to become disabled\textsuperscript{18}. Also, research indicates that those with pre-existing mental health issues are predisposed to developing chronic disease\textsuperscript{15}.

Chronic disease is both a risk factor for, and an outcome of, lower financial status. Those with lower incomes tend to have higher rates of chronic disease\textsuperscript{19}, and it is in this socioeconomic group in which the rate of chronic disease is growing fastest\textsuperscript{5}. Further, those who develop chronic disease often face the additional stress of higher medical costs, sometimes have to take lower paying jobs to accommodate their illnesses. In other cases, family members may need to reduce or stop their employment in order to care for a loved one\textsuperscript{5,20}. Thus, chronic disease can be a financial drain for those afflicted - regardless of financial standing - and exacerbates the financial strain of those already disadvantaged\textsuperscript{5}.

Given the physical, psychological, and financial impact of chronic disease on people, it is not a surprise that their family members are affected as well. In a large, multi disciplinary study of family members people with chronic disease\textsuperscript{21}, the family members reported their lives are affected in several ways, including; changes

\begin{itemize}
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\end{itemize}
to daily routine, family relationships, sleep, health, holidays, work, study, financial impact, social life, emotional health, and time planning. Respondents identified a median of six of these impacts.

Chronic Disease is Largely Preventable through Lifestyle Choices

It has been well established that physical inactivity, tobacco use, unhealthy eating, and abuse of alcohol lead to elevated blood pressure, overweight/obesity, high blood sugar and elevated cholesterol, which in turn increases the likelihood of cardiovascular disease, diabetes, chronic respiratory disease and some cancers. Smoking is estimated to cause about 71% of lung cancers, 42% of the chronic respiratory disease, and nearly 10% of cardiovascular disease cases. Physical inactivity alone is estimated to cause 27% of cases of diabetes and about 30% of ischaemic heart disease cases. Harmful use of alcohol accounts for about 4% of all deaths in the world, half of which result from chronic cardiovascular disease and liver disease. On the other hand, unhealthy diets frequently contain inadequate amounts of fruits and vegetables, which have been shown to reduce the risk for cardiovascular diseases, diabetes, obesity and dementia.

In fact, 80% of the cases of cardiovascular disease, diabetes, and respiratory disease are preventable through physical activity, healthy eating, abstaining from tobacco, and avoiding abuse of alcohol. The good news is that because these risks are largely attributable to an individual’s behaviour, they are modifiable. In fact, 80% of the cases of cardiovascular disease, diabetes, and respiratory disease are preventable through physical activity, healthy eating, abstaining from tobacco, and avoiding abuse of alcohol.
Our Current Lifestyle Choices are Making Us Sick

**Physical Activity** – Physical activity has been shown to lower elevated blood pressure, reduce the risk of cardiovascular disease and diabetes, help control weight, strengthen bones and muscles, improve mental health and mood, and increase longevity\(^{23,24}\). Despite the benefits however, only about 1/5 U.S. and 1/6 Canadian adults achieve the recommended 150 minutes of moderate-to-vigorous physical activity per week as set out by the respective national guidelines\(^{25,26,27}\).

**Eating Habits** - Eating at least five servings of fruits and vegetables per day helps to lower the risk of cardiovascular disease, stomach cancer and colorectal cancer. Yet only about 1/3 working-age men and 1/2 working-age women consume the recommended amount of fruits and vegetables.

**Smoking** - Smoking increases the risk of coronary heart disease and stroke by two to four times, and lung cancer by 25 times. For the 23% of working age adults in U.S. and 19% in Canada who currently smoke\(^{29,30}\), stopping smoking is the single most important risk factor to eliminate. Doing so reduces cardiovascular risk sharply after one year. Within five years of quitting, the risk of stroke can be reduced to the rate of a non-smoker, and the risks for mouth, throat, esophagus, and bladder cancers are cut by half. Within 10 years, the risk of lung cancer is halved as well\(^{30}\).

**Abuse of alcohol** - The acute risks of alcohol abuse – accidents, violence, and increased potential for high-risk behaviour - are well documented. The long-term health and social effects of chronic abuse of alcohol include high blood pressure, heart disease, stroke, digestive problems, cancers (including breast, mouth, throat, esophagus, liver, and colon), memory and learning problems,
Mental Health Issues are a Large and Growing Problem in the Workplace

Mental health issues now the most common reason for a disability claim in Canada and in the U.K.\textsuperscript{32,33}. In the U.S. and in the U.K., approximately 21\% of workers experience the mental health or substance use disorder in any given year\textsuperscript{29,33}.

\textbf{Anxiety and Depression} – Approximately 18\% of American adults have an anxiety disorder\textsuperscript{35}, and the prevalence of depression among working age adults ranges between 4\% and 11\%, depending on the profession\textsuperscript{36}. Within a three-month period, depressed workers miss an average of 4.8 workdays and suffer an additional 11.5 days of reduced productivity.

\textbf{Stress} – according surveys done for the American Psychological Association, approximately 25\% of Americans say that stress has a very strong or strong impact on their physical or mental health. The most common stressors are related to money (64\% of respondents), work (60\%), the economy (49\%), family responsibilities (47\%), and personal health concerns (46\%). The most commonly reported symptoms of stress include feeling irritable or angry (37\%), being nervous or anxious (35\%), lacking interest or motivation (34\%), feeling tired (32\%), feeling overwhelmed (32\%), and being depressed or sad (32\%). In the previous month, 41\% of adults reported losing patience or yelling at their spouse due to stress, and 18\% of employed adults said they snapped at or were short with their co-worker\textsuperscript{37}.
Our Lifestyle Choices to Manage Stress Are Often Ineffective

While 43% of American adults report exercising/walking to manage stress, they also report frequently using more sedentary approaches, like listening to music (44%), watching television for more than two hours a day (40%), and surfing the internet (38%), napping or sleeping (27%), eating (23%), drinking alcohol (14%), and smoking (12%)\(^37\).  

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