

AIR CANADA'S PILOT HEALTH PROGRAM: A COMMITMENT TO SAFETY AND EMPLOYEE ENGAGEMENT

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Introduction

Helping pilots manage their health and medical issues not only helps the pilot but also helps the company to maintain a high level of safety, reliability and avoid costs. Every pilot's nightmare is the thought of losing his or her medical certification and being stopped from flying. However, having risk factors that predispose them to chronic diseases such as diabetes or coronary heart disease is no longer the end of a career for pilots. Employers like Air Canada have realized the benefit of implementing programs that provide early detection and help those diagnosed to better manage their condition. Air Canada's pilot health program is designed to help prevent and/or manage what are common, non-disabling conditions for most but conditions that can halt a pilot's career.

Air Canada is Canada's largest full-service airline and the largest provider of scheduled passenger services in the Canadian market, the Canada-U.S. trans-border market and in the international market to and from Canada. Air Canada serves over 32 million customers annually and provides direct passenger service to over 170 destinations on five continents while relying on the health, expertise and professionalism of its 2,700 pilots and over 25,000 employees.

So why are airline pilots any different than any other employee? The answer is that we entrust pilots with the lives of hundreds of passengers each flight. Pilots are highly skilled individuals and Air Canada makes a significant investment in training annually to ensure they are fully qualified. They perform this safety sensitive role within a complex exposure environment that presents different and more complicated physiological challenges to their health. Pilots face a host of potential hazards that are unique including circadian dysrhythmia (irregular sleep patterns related to circadian cycles), air pressure changes, hypoxia, fatigue, psychosocial stresses and a sedentary job.ⁱ

A comprehensive health promotion program can lower the rate of health care and disability cost increases and produce a positive return on investment. Costs associated with supporting disability insurance programs to support pilots who have been deemed unfit to fly for medical reasons are significant. Although it's important to know the cost of disability when building a business case for programs it is imperative to understand the causes of disability. The most common reasons for medical disability in North American pilots today vary by age group and include injuries, mental disorders and cardiovascular disorders.ⁱⁱ The opportunity for Air Canada's pilot program lies in the fact many of these disorders and costs are preventable with early identification and lifestyle modification.

Air Canada realized many years ago that introducing occupational health programs not only ensure compliance with aviation regulations but this compliance is also a focus on safety and prevention. Investing in health helps prevent disease in pilots, supports the company's top priority, "safe, reliable operations", helps avoid costs associated with absenteeism and disability and improves employee engagement.

Investing in pilot health and employee engagement

Most businesses today recognize the critical resource is no longer capital – that is, assets that a company owns and utilizes at as a level as possible. Rather, the critical resources are human resources that a company must motivate and retain. In fact, for airlines employee costs are typically about one and one half times that of capital costs, despite airlines' giant equipment purchases. Although fuel is a major

cost for airlines, fuel expenditure isn't a good lever for improving performance because, as a commodity, fuel is sold at roughly the same price to all players in the industry.ⁱⁱⁱ A better lever for improving business performance is believed to be employee engagement, a state in which individuals are emotionally and intellectually committed to the organization.^{iv}

Current research suggests a key antecedent of employee engagement may be the perceived organizational support to the individual.^v This refers to a general belief that one's organization values their contribution and cares about their well-being.^{vi} How an organization goes about investing in their people to deliver better results is seen as an indicator of future organizational success. Therefore, investing in pilot health programs can be seen as an investment in improving business results and for Air Canada that means both results in improved safety performance and improved bottom line performance.

Ultimately, the main goal of Air Canada's pilot health programs is to prevent the impairment of performance and safety due to pilot health concerns. Air Canada strives to maintain healthy, fit aircrews whose constitutions are most adaptable and resilient with respect to the physiologic stress of flight. Under the Canadian Aviation Regulations commercial pilots are required to undergo medical examinations annually, as a minimum, by a Civil Aviation Medical Examiner (CAME). The CAME performs a complete examination of the pilot and makes a recommendation to Transport Canada (Canada's federal aviation authority) for medical certification. The CAME is not only an important link in the chain of safety in the medical certification process but is also well positioned to intervene early helping pilots to modify their lifestyle and prevent disorders such as diabetes or heart disease.

Recognizing the opportunity some 20 years ago to invest in its human capital the company's in-house Occupational Health Services department expanded the scope of examinations conducted for regulatory compliance purposes. Other diagnostic tests and assessments are offered to pilots as a voluntary program to proactively identify risk factors that may indicate a pilot needs to re-examine his or her lifestyle. This helps pilots appreciate the need to improve their diet, focus on exercise and take control of their own

health and wellness. In some cases examinations have identified medical conditions early, allowing for timely treatment and monitoring of the pilot's condition and recovery.

One of the main benefits of the program is that it minimizes the pilot's time off allowing them to rehabilitate and return to flying, which pilots love to do. Another significant outcome of the program has been a high level of employee engagement, an improved emotional and intellectual commitment of pilots to their job. This personal engagement is "*the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances.*"^{vii} This physical, cognitive, and emotional expression has been a critical element of ensuring a high level of safety at the airline.

The Air Canada pilot health program includes preventive care targeted at specific chronic diseases and long-term conditions that require ongoing monitoring and management including hypertension, heart disease, diabetes, and mental illness.

Preventing cardiovascular disease

Cardiovascular disease remains the leading cause of death in Canada and is one of the major reasons for hospitalization. It accounts for the death of more Canadians than any other disease. In Canada one third of all deaths in 2002 were due to heart diseases, diseases of the blood vessels and stroke.^{viii} Coronary heart disease is a leading cause of denial or loss of licensure in commercial aviators.

Physical inactivity is recognized as a risk factor for cardiovascular disease. Due to the sedentary nature of the job, and if pilots also lead a sedentary lifestyle, there is the potential for weight gain, hyperlipidemia, hypertension and eventually cardiovascular complications including coronary heart disease.^{ix} Regular physical activity can reduce body weight, improve serum lipids and cholesterol, blood pressure and diabetes, and thereby reduce overall cardiovascular risk. Numerous studies clearly show that regular physical activity can help prevent cardiovascular disease.

Pilots in Air Canada's program are evaluated using the standard non-invasive tests which are applied depending on the patient's particular risk factors and the physician's assessment. Tests may include regular blood pressure checks, laboratory blood tests, resting electrocardiogram (as a regulatory requirement) and/or exercise stress test. Following clinical guidelines physicians check pilots for their risk of cardiovascular disease. Those predisposed to cardiovascular disease are identified early, get counseling on Canada's Food Guide to enable them to take actions to modify their lifestyle and prevent heart disease. One-on-one interaction and advice from physicians help pilots understand the 'numbers' generated from diagnostic tests and provide the opportunity to better manage their own health.

Avoiding the onset of diabetes

Some, including the International Diabetes Federation, suggest diabetes has become an epidemic. Over two million Canadians have diabetes and that number is expected to reach three million by 2010. The United States Centre for Disease Control estimates 10.7% of all people aged 20 years or older have diabetes. And, the number of people with type 2 diabetes is increasing dramatically due to a number of factors such as the population is aging, obesity rates are rising and lifestyles are increasingly sedentary.

According to the Canadian Diabetes Association, a diabetic (or their employer) can face costs for medication and supplies ranging from \$1 000 to \$15 000 every year, with additional costs of increased absenteeism, disability and decreased productivity. A person with diabetes incurs medical costs that are estimated to be two to three times higher than that of a person without diabetes.^x In the United States the average medical expenditures among people with diagnosed diabetes were 2.3 times higher than what expenditures would be in the absence of diabetes.^{xi} Clearly, investing in primary prevention to help employees avoid developing diabetes will also result in cost avoidance for the employer.

The vast majority of pilots are very active individuals. However, due to the nature of the job and a sedentary lifestyle some pilots are more predisposed to weight gain, developing insulin resistance and eventually diabetes. Many pilots with diabetes requiring medication

for this common disorder are assessed as "unfit" to fly. However, those whose condition are caught early, and can be controlled by dietary measures, can be permitted to fly. The key however, is identifying risk factors early and having the medical support to prevent that nightmare of losing his or her medical certification. Air Canada's monitoring program for pilots includes blood glucose testing which helps to identify and diagnose pre-diabetic conditions which if left unchecked may develop into diabetes mellitus.

Preventing stress, personal life-style problems and mental illness

In Canada it is estimated that all forms of mental illness costs the country \$16 billion a year which represents approximately 14% of the net operating revenue of all Canadian businesses combined. According to the Conference Board of Canada, workers who reported a high degree of stress balancing their work and family life missed 7.2 days of work each year^{xiii} – double the absentee rate of those who reported very little stress. Stress, personal life-style problems such as alcohol use and conditions like depression can result in a pilot being deemed unfit to fly if not identified and treated early.

The association between psychosocial stress and disease, such as myocardial infarction, has received considerable attention over the past 20 years. Significant correlations have been found between clinical symptoms of coronary artery disease and the type A behaviour pattern.^{xiii} Other studies have suggested that where stress outweighs satisfaction, health outcomes have a strong tendency to be negative while the opposite is true when satisfaction outweighs stress. Negative health outcomes associated with high stress and low satisfaction includes lower self-reported health status, higher absenteeism, more use of Employee/Family Assistance Programs.^{xiv}

Recognizing that many problems can be prevented provided they are identified in their early stages, Air Canada and the Air Canada Pilots Association partnered to establish the Airline Pilot Health and Rehabilitation Program. This program is committed to the identification of pilots with personal life-style problems, assessment, treatment, job reintegration and follow up for pilots with problems that if left unaddressed could become costly health issues. The program strives for early identification, with constant support and

monitoring by an educated team consisting of Air Canada physicians, Employee Assistance Programs professionals and Air Canada Pilots Association representatives. Confidentiality is essential when dealing with personal life-style problems, stress or mental health issues. Great caution and planning are required to help pilots in identifying a concern, supporting them in addressing the issue before it escalates to a disability and reducing the probability of relapse.

Return on investment for health programs

The workplace is increasingly recognized as a potentially effective and efficient site for wellness intervention.^{xv} Programs designed to help promote employee health provide benefits to the employee but also provide benefits to the organization. A comprehensive health promotion program can lower the rate of health care cost increases and produce a positive return on investment.^{xvi} Companies with the most effective health and productivity programs experienced superior human capital and financial outcomes: 11 percent higher revenue per employee, lower medical trends by 1.2 percentage points, 1.8 fewer days absent per employee and 28 percent higher shareholder returns. High health and productivity effectiveness companies are also more likely to have lower health care costs, lower levels of presenteeism, fewer lost days due to disabilities and lower levels of turnover relative to their industry peers.^{xvii}

While many may consider regular exercise to be sufficient in terms of preventive care, the reality is that preventive care must also target chronic disease. Hypertension, heart disease, cancer, diabetes, and obesity are all examples of long-term conditions and diseases that require ongoing monitoring and management. Providing clinical preventive services in a work setting for chronic diseases is one approach that has been recommended for improving productivity of the work force.^{xviii} Air Canada's pilot health program has targeted specific chronic diseases and medical conditions that may deem a pilot unfit to fly and require ongoing monitoring and management. Although the primary reason for investing in the pilot health program is to ensure safe, reliable operations the program is also justified on the premise that it helps lower the rate of health care cost increases and produce a positive return on investment.

Conclusion

Air Canada's programs would not have been possible without visionary leaders who began developing these programs some 20 years ago and the partnerships with forward thinking labour organizations like the Air Canada Pilots Association. In an era when many Canadian employees have trouble finding a family doctor, clinical guidelines seem to be changing regularly and when health benefits costs are skyrocketing these types of occupational health programs can provide great value. The value generated benefits employees, their families, the company and society as they reduce the burden on the health care system. And, when tied to the company's strategic priorities like maintaining safe, reliable operations and effectively managing costs it's not difficult to build a sound business case for investing in employee health. Air Canada's pilot health program not only ensures compliance with aviation regulations but also focuses on improving safety and employee engagement. The company's investment in helps prevent disease, supports safety, contains costs associated with absenteeism and improves emotional connectedness to the company.

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