## Climate change and health care

**Dr. Trevor Hancock**

**30 November 2015**

In this week of the Paris climate change summit, it is worth considering the health care system's contribution to climate change and how it can be reduced.

Health care, not surprisingly, is a bit of an energy pig! After all, the system is a large part of our economy – about 11% of GDP – and with around 2 million workers, is the third largest employment sector in Canada after retail and manufacturing. Moreover, our hospitals run 24/7, use a lot of energy-intensive equipment and maintain an even temeperature no matter the temperature. Small wonder they are among the most energy-intensive facilities in our communities.

Of course, whether the health care system is a major source of greenhouse gas (GHG) emissions depends on their energy source. In provinces such as BC, where most energy is hydro-electric, they contribute to GHG emissions directly mainly through the use of oil or gas for space heating. But they contribute to GHG emissions in other ways, particularly through transportation, as well as incineration of medical wastes.

First, as a major employer, large numbers of staff need to travel to and from work, or as part of their work. As a high user of disposables - and thus a high generator of solid waste – health care also generates much truck traffic to move supplies and wastes in and out. And of course millions of patients and their families travel to and from health care facilities.

All of these activities mean that the health care system, in its normal operations, is inadvertently doing harm to the environment, and thus to people. This is in direct contravention of one of the fundamental ethical precepts of health care: *Primum non nocere* – First, do no harm, which is embedded in the Hippocratic Oath.

In response to these challenges, the health care sector has seen a dramatic growth in the movement towards environmentally responsible health care in the past 20 years. At a global level, this is epitomised by Health Care Without Harm - a name inspired by the principle of doing no harm. It began in the USA in 1996 and today is an international coalition of more than 500 organizations in 53 countries, with offices around the world.

In Canada, the Canadian Coalition for Green Health Care – which I co-founded – began in 2000, and is a well-established network, with many health care facilities and organisations across the country, as well as business and NGO partners who are working to create more environmentally friendly goods and services. Energy efficiency is an important focus of their work.

In fact, the health care system has done a reasonable job over the past 20 years or so in improving energy efficiency – and reaping the economic as well as the environmental benefits. The Interior Health Authority has been a leader in BC. Among its many actions it has implemented a policy to ensure new facilities meet LEED Gold standards,  undertaken other energy conservation measures such as implementing more energy efficient lighting and adding solar power to some of its buildings, and has implemented a policy to make all new vehicle purchases hybrid. In 2011 it won the Energy and Environmental Stewardship Award from the Canadian College of Health Leaders for its work.

Another interesting way of reducing GHG emissions is through telehealth, a technology that allows physicians to consult with patients and their local care providers remotely. In BC, where it is

widely used, Island Health reported their patients "have saved more than 3.7 million kilometers of travel to appointments". An Interior Health study estimated just one of its Telehealth programs saved 8.4 million patient kms and hundreds of thousands of kms of consultant travel over 2 years, while reducing GHG emissions by more than 2000 tonnes of $CO_2$.

This is a large saving in patient travel costs and a reduction in GHGs and other air pollutants. But it also reduces the potential for road injuries for patients, families and staff, especially as some of that travel (in Canada) would be in winter road conditions. Clearly by removing the need to travel we can reduce emissions, increase safety and improve access.

So health care systems can reduce harm to the planet and to their patients and staff, while saving money. A pretty good return on investment!

*© **Trevor Hancock, 2015***

*Published in the Times Colonist*