



February 28, 2007

*Leadership for Physicians...  
Health for Canadians*

*Leadership pour les médecins...  
Santé pour les Canadiens*

Mr. Laurie Hawn, MP  
Chair, Legislative Committee on Bill C-30  
c/o Chad Mariage, Clerk of the Committee  
Sixth Floor, 180 Wellington Street  
Wellington Building  
House of Commons  
Ottawa, ON K1A 0A6

Dear Mr. Hawn:

The Canadian Medical Association (CMA) is pleased to participate in the review of the Clean Air Act, Bill C-30. The CMA, first founded in 1867, currently represents more than 64,000 physicians across the country. Our mission includes advocating for the highest standard of health and health care for all Canadians and we are committed to activities that will result in healthy public policy.

#### The Environment: A Key Determinant of Health

The physical environment is a key determinant of a population's health and the medical profession is concerned about environmental conditions that contribute to declining health in individuals and the population as a whole. Physicians have been part of an early warning system of scientists and other health professionals calling attention to the effects on human health of poor air quality because we see the impact in our practice and in our communities.

There is strong evidence that air pollution is the most harmful environmental problem in Canada in terms of human health effects. We know from the smog health studies undertaken by the Ontario Medical Association (OMA), Health Canada and others, about the public health crisis created by polluted air in many parts of Canada. And it is a crisis.

A study by the federal government estimated that 5,900 premature deaths occur annually in eight large Canadian cities. This is a conservative estimate as the study focused on the short-term impact of smog pollutants using time-series studies. This study was never extrapolated to the whole Canadian population, but we know that only approximately one third of the Canadian population, mainly residents of large, urban areas, were included in the analysis.<sup>1</sup>

<sup>1</sup> S. Judek, B. Jessiman, D. Stieb, and R. Vet. 2005. Estimated Number of Excess Deaths in Canada Due to Air Pollution". Health Canada and Environment Canada. [http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2005/2005\\_32bk2\\_e.html#top](http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2005/2005_32bk2_e.html#top)

The OMA *Illness Costs of Air Pollution* study estimated that there were 5,800 premature deaths due to air pollution in Ontario alone in 2005, and examined both short-term and long-term health impacts. The OMA projected that the annual figure will grow to 10,000 premature deaths by 2026 unless effective steps are taken to reduce smog.<sup>2</sup>

In addition to premature deaths, the OMA estimated that there were 16,000 hospital admissions and 60,000 emergency room visits in Ontario in 2005 because of respiratory and cardiovascular illnesses associated with air pollution exposure. During that same year, the OMA also estimated that there were 29 million minor illness days, defined as days where individuals either suffered from asthma symptoms or had to restrict their activities. Most of the people affected by these so-called minor illness days are children.

In British Columbia, the Provincial Officer for Health published a conservative estimate in 2004 that air pollution in B.C. is causing between 140 and 400 premature deaths, 700 to 2,100 hospital stays, and between 900 and 2,750 emergency room visits each year.<sup>3</sup>

The direct and indirect costs of air pollution on the health of Canadians are estimated to be in the billions of dollars. According to the Ontario Medical Association, in 2005, air pollution costs in Ontario were estimated at:

- \$374 million in lost productivity and work time;
- \$507 million in direct health care costs;
- \$537 million in pain and suffering due to non-fatal illness; and
- \$6.4 billion in loss due to premature death.<sup>4</sup>

In Canada the environment is currently considered to be the most important issue facing society. In a recent poll by the Strategic Counsel for the Globe & Mail/CTV<sup>5</sup> a majority of respondents ranked the impact of toxic chemicals, air and water pollution and global warming as life threatening. The environment, while a major concern today for the general public, has been of concern to physicians for some time.

---

<sup>2</sup> Ontario Medical Association. 2005. *The Illness Costs of Air Pollution: 2005-2026 Health and Economic Damage Estimates*. Toronto: OMA.

<sup>3</sup> B.C. Provincial Health Officer. 2004. *Every Breath You Take: Air Quality in British Columbia, A Public Health Perspective*. 2003 Annual Report. Victoria: Ministry of Health Services.

<sup>4</sup> Ontario Medical Association, 2005

<sup>5</sup> GLOBE/CTV POLL Climate concerns now top security and health One in four label environmental issues as most important, *The Globe and Mail*, Fri 26 Jan 2007, Page: A1, Section: National News, Byline: Brian Laghi

## CMA, Health and the Environment

In 1991 the CMA, released a policy paper *Health, the Environment and Sustainable Development*<sup>6</sup> that clearly linked health and the environment. Building on the 1987 Brundtland Report (World Commission on Environment and Development, *Our Common Future*) that tied sustainable development to the environment and the economy, the CMA inserted health into this pair of interactions and stated that "continued environmental degradation will increase hazard to human health." The paper concluded with a number of recommendations for governments, the health sector, and physicians in support of environmentally sustainable development.

The CMA has continued to give attention to environmental issues urging the government, prior to Canada's ratification of the Kyoto Protocol, to commit to choosing a climate change strategy that satisfies Canada's international commitments while maximizing the clean air co-benefits and smog-reduction potential of any greenhouse gas reduction initiatives. In 2002, the CMA also recommended that the federal Environment and Health Ministers commit their departments to improved health-based reporting by regularly updating the health effects information for pollutants of concern.

### Clean Air Act: A Physicians Perspective

Doctors understand the concept that success from an intervention can be nuanced. In the case of disease, physicians know and accept that there are benefits of treatment even if a patient cannot be cured. Sometimes we just reduce their symptoms, or slow their rate of decline. But when treating the natural environment, so critical to human health, we suggest that you cannot accept a palliative solution. We must aim for cure. We must commit to measures of success in terms of real improvement in health. It is through this lens that the CMA urges that you view the Clean Air Act to ensure that it is health-relevant.

The CMA would like to commend this government for acknowledging the impact of the physical environment on human health and we are encouraged that the Act recognizes the intimate connection between greenhouse gas reductions and improved air quality.

Air pollution does not respect provincial borders therefore it is very important to establish national objectives and Canada wide standards that are strong and consistent across the country. To be health relevant national air quality objectives must result in air quality improvements. To this end, regardless of whether they are called objectives or standards, national air quality targets must protect the health of all Canadians and must be binding. Voluntary air quality guidelines guarantee no health benefit.

---

<sup>6</sup> *Health, the Environment and Sustainable Development*, Canadian Medical Association, 1991

The federal government must ensure that there is a regulatory framework in place to ensure that the standards are mandatory across the country.

The annual reporting to Parliament on the attainment of the national air quality objectives and the effectiveness of measures to attain the objectives, as outlined in the Act, is very important. Transparency in reporting is essential to the integrity of any program, but is integral to the determination of health benefit.

The International Panel on Climate Change's Fourth Assessment report released on February 2, 2007, concluded that global warming is unequivocal and that human activity is the main driver, asserting with near certainty — more than 90 percent confidence — that carbon dioxide and other heat-trapping greenhouse gases from human activities have been the main causes of warming since 1950.

Its Third Assessment report: *Climate Change 2001: Working Group II: Impacts, Adaptation and Vulnerability* noted that global climate change will have a wide range of impacts on human health.

"Overall, negative health impacts are expected to outweigh positive health impacts. Some health impacts would result from changes in the frequencies and intensities of extremes of heat and cold and of floods and droughts. Other health impacts would result from the impacts of climate change on ecological and social systems and would include changes in infectious disease occurrence, local food production and nutritional adequacy, and concentrations of local air pollutants and aeroallergens, as well as various health consequences of population displacement and economic disruption."<sup>7</sup>

Given the indisputable impact of greenhouse gas increases on climate change and its connection to human health, it is critical to ensure that Canada is moving quickly to reduce greenhouse gas emissions.

The Clean Air Act and the subsequent notice of intent sets out short, medium and long term targets and timelines for the reduction of greenhouse gas emissions in Canada.

The target setting approach proposed in the Act, based on emission intensity in the short and medium term is not health relevant. To be health relevant, targets should be presented in the context of overall emissions, i.e., emissions reductions minus emissions increases.

---

<sup>7</sup> WMO Intergovernmental Panel on Climate Change, *Climate Change 2001, IPCC Third Assessment Report: Working Group II: Impacts, Adaptation and Vulnerability*, accessed Feb 7, 2007  
[http://www.grida.no/climate/ipcc\\_tar/wg2/348.htm](http://www.grida.no/climate/ipcc_tar/wg2/348.htm)

An emission reduction from a particular source is only health-relevant if we can guarantee that there is not a corresponding emissions increase at another source nearby, because it is the absolute exposure that an individual experiences that affects the risk of an adverse health effect. Just as slowing the progression of a disease can never be considered a cure, attempting only to limit the growth of those emissions cannot result in true success by any measure.

It is not until 2050 that the government has committed to achieving an absolute reduction in greenhouse gas emissions of between 45 – 65% of 2003 levels. Based on the emission intensity targets in the Clean Air Act, emissions and air pollution levels will, in fact, continue to rise as will the health consequences. In order to protect the health of Canadians the government needs to set policies, with targets and timelines that maximize absolute reductions in greenhouse gases, which are consistent with the scale and urgency of the challenge. To ensure that prescribed policies result in the intended environment and health outcomes, short and medium-term targets for absolute emission reductions would benchmark progress and allow for mid-course corrections, if they were needed.

With respect to indoor air quality, physicians have long been proponents of initiatives to reduce exposure to contaminants such as second-hand tobacco smoke. The CMA is concerned about the impact on human health of exposure to high levels of radon and the associated increased risk of lung cancer. The intention to develop measures to address indoor air quality through a national radon strategy is a positive step. It is important that our patients are made aware of such threats in their homes, and also that they are presented with a way to reduce their exposure.

Environmentally related illness is essentially the combined result of exposure and vulnerability. We are vulnerable because we are human beings; each human being has different physical strengths and weaknesses. Some vulnerabilities to environmental influences are genetic, and some the results of pre-existing disease. There is not much that government can do about this part of the equation.

Our exposure, on the other hand is related to the air we breathe, water we drink and food we eat. This is where the federal government is critical, and where the measures of success will be the most important.

Proxy measures for the health outcomes that matter must be relevant from a health perspective. Health-based success can only be measured by quantifiable reductions in the exposure levels of contaminants in our air as well as in our water and soil.

---

Mr. Laurie Hawn, MP  
February 28, 2007  
Page 6

Clean air is absolutely fundamental to a healthy population – without it all else is irrelevant. Actions to curb air pollution must be taken in all sectors and levels of society in a concerted, non-partisan effort with the health of the population and the planet as our yardstick of success.

Thank you for the opportunity to provide our comments on Bill C-30, the Clean Air Act. We look forward to working with you to improve the Clean Air Act and ensure that the measure of its success will benefit the health of Canadians.

Sincerely

A handwritten signature in black ink, reading "Colin J. McMillan". The signature is written in a cursive style with a large initial "C" and a long, sweeping underline.

Colin J. McMillan, MD, CM, FRCPC, FACP  
President