

By Peter Shawn Taylor Thu Apr 07 2011 00:01:00 34 Comments 1 Recommend

## Air pollution death toll claims just blowing smoke

By Peter Shawn Taylor



Anyone tossing around allegations that a "crime" has been committed had better be prepared to defend those claims with solid evidence.

Two weeks ago on these pages local entrepreneur Derek Satnik made such a claim. In defending the viability of wind power Satnik, who works in the green energy industry, warned readers that they must consider the deadly impact of other forms of electricity. ("Does any potential health risk from wind power even matter? March 26, 2011)

Satnik writes: "The chief medical officer of Ontario publishes annual reports that talk about the 9,000 Ontarians who die every year from respiratory ailments caused in part by the emissions from coal based electricity plants." He claims anyone who uses electricity is somehow "involved" in this devastating annual death toll. "It's a crime that we've gone so long thinking it's OK for anyone to turn on their fridge without thinking of who dies at the other end of the wires." It seems a damning argument. If true.

So where is the provincial government's list of coal-fired deaths?

I phoned the chief medical officer of Ontario in Toronto and was told her office has never produced any reports on respiratory deaths due to electricity or air pollution. Hmm.

However, the Ontario Medical Association – a non-government organization that represents doctors – did produce a report in 2008 on the death toll resulting from air pollution. While it does not explicitly finger coal power as the culprit, it's possible Satnik just made a sloppy reference.

Then again, over 9,000 deaths a year is a massive loss of life. A closer look at the original source material is necessary.

The Ontario Medical Association's Illness Costs of Air Pollution report states that "air pollution is a contributing factor in almost 9,500 premature deaths per year in Ontario." It then provides a surprisingly detailed account of these fatalities. In Waterloo Region exactly 348 deaths were caused by air pollution. In Guelph and environs, the toll was 158. Hamilton: 445. Toronto: 2,130.

But there is something absurd about the precision with which the doctors' organization claims to have identified death by smog. Air pollution never shows up as a cause on a death certificate. So how can anyone be sure of these numbers? In fact not all doctors agree with the outlandish claims.

Last year I asked Cambridge family physician Paul Cary about the smog deaths attributed to our region. He called it "quite ludicrous. In 40 years of medicine I have never once seen or heard of a patient struck down by air pollution." While smog alerts can be associated with mass hospitalizations and an increase in deaths, Cary explains this is a spurious link. Heat-exhaustion and fluid loss are the real culprits, not pollution.

The numbers for smog deaths do not come from any tangible real world evidence, but have been inferred using computer models.

The Ontario Medical Association combines hospitalization and death rates, air quality readings and various other factors to create a guess at how many fatalities are due to air pollution. This includes short-term impacts arising from smog alerts as well as longer-term effects. Toronto Public Health uses the same technique to conclude that 1,700 residents die annually from air pollution.

But computer modeling of this kind is a highly subjective exercise. It is necessary to apply some common sense to the results.

Ross McKittrick, a University of Guelph economist, has taken a close look at the usefulness of the computer methods producing these smog death figures. First he took Toronto's computer model and gave it data from the 1960s, when air pollution was noticeably worse than today. Back-testing is a common way to judge a computer model's reliability. If it cannot explain what has already happened, then it's usefulness in explaining the future is highly suspect.

The output was nonsense. In February 1965, for instance, the computer model claimed more people died from air pollution than died in the real world from all causes.

"The results I got suggest the models are implausible," McKittrick told me. "They're attributing over 100 percent of all deaths to air pollution. It just doesn't make sense."

Given the obvious flaws in existing computer models, McKittrick created his own simulation. With two Scottish academics he gathered 20 years of data from five Canadian cities – a far larger data set than used by the Ontario Medical Association – and performed a more sophisticated computer test. These results show air pollution to be almost entirely irrelevant to hospital admissions or death. Smoking and income are the most significant factors in explaining respiratory ailments.

"We can find no evidence that air pollution levels observed from 1974 to 1994 had a detrimental effect on either excess hospital admissions or time spent in hospital," concludes the report in the academic journal *Environmental Modelling & Software*.

According to McKittrick, even if all forms of air pollution miraculously disappeared from Ontario over night, there would be no noticeable decline in the death rate. Claims of a massive death toll do not stand up to scrutiny.

Fans of wind power can blow all they like, but 9,000 people do not die every year because of coal-fired electricity.

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