



the air we breathe

AN INTERNATIONAL COMPARISON OF AIR QUALITY STANDARDS AND GUIDELINES

Air pollution is the most harmful environmental problem in Canada in terms of human health effects, causing thousands of deaths, millions of cases of illness, billions of dollars in health care expenses, and tens of billions of dollars in lost productivity every year. To put these figures in context, the magnitude of deaths and illnesses caused by air pollution in Canada is equivalent to a Walkerton water disaster happening on a daily basis.

This report compares Canada's voluntary air quality guidelines with the legally binding national standards in the United States, Europe, and Australia, as well as the recommendations published by the World Health Organization. Ozone, particulate matter, sulphur oxides, nitrogen oxides, carbon monoxide, and lead – known as the six criteria air pollutants – are the focus of the comparative analysis.

The disturbing but undeniable conclusion reached by this study is that Canada provides weaker protection for human health from the negative effects of air pollution than the U.S., Australia, or the European Union. Canada is the only nation to rely on voluntary national guidelines, which provide a far weaker approach to air pollution than the national standards in the U.S., Australia, and the European Union.

Canada's air quality guidelines are weaker than the European Union standards on five out of six air pollutants. Canada's air quality guidelines also are weaker than the Australian standards on five out of six air pollutants. Canada's air quality guidelines are weaker than the World Health Organization recommendations for all five air pollutants with WHO standards (neither the WHO nor Canada has a guideline for lead). Only in comparison to the U.S. does Canada fare slightly better, with Canada having more stringent numerical values than the U.S. for three air pollutants while the U.S. has more stringent numerical targets than Canada for two pollutants. However all of the U.S. standards are inherently stronger because they are legally binding and enforceable while the Canadian guidelines are merely voluntary goals.



David
Suzuki
Foundation

SOLUTIONS ARE IN OUR NATURE

TABLE 1
International Comparison of Ambient Air Quality Standards and Guidelines,
as compared with recommendations of the World Health Organization (WHO)

POLLUTANT	WORLD HEALTH ORG	EUROPEAN UNION	AUSTRALIA	UNITED STATES	CANADA
Ozone 8 hour, parts per billion	50	60	80	80	65
Fine particulate 24 hr., micrograms per m ³	25	50	25	65	30
Sulphur dioxide 24 hour, ppb	8	48	80	140	115
Nitrogen dioxide Annual, ppb	21	21	30	53	53
Carbon monoxide 8 hour, ppm	9	9	9	9	13
Lead Micrograms per m ³	–	0.5	0.5	1.5	–

NOTE: A dash (–) indicates that no standard or guideline has been established for a particular parameter.

The David Suzuki Foundation believes that Canadians should enjoy a level of protection from environmental threats that is equal to or better than the highest standard enjoyed by the citizens of other industrialized nations. The U.S., Australia, and the European Union all have legally binding national standards for air quality. There is no reason why Canadians should not enjoy the same level of protection.

In order to provide an adequate level of health protection for Canadians, the federal government needs to establish and enforce legally binding national standards for air quality. By reducing pollution, Canada has the ability to save thousands of lives, prevent millions of cases of illness, and save billions of dollars.

It should be noted that the burning of fossil fuels generates the overwhelming majority of the air pollution in Canada. There is an important synergy between improving air quality and the increasingly urgent need to reduce greenhouse gas emissions. Policies and actions intended to improve Canada's air quality should also maximize reductions in greenhouse gas emissions. In the medium to long-term, the negative effects of climate change on human health and well-being may dwarf the negative health effects of other types of air pollution.

The David Suzuki Foundation's five key recommendations for reducing the toll of air pollution on the health and well-being of Canadians are:

RECOMMENDATION 1: Enact, implement, and enforce national standards for ambient air quality to replace existing voluntary guidelines.

RECOMMENDATION 2: Ensure that Canada's air quality standards meet or surpass the air quality standards of other industrialized nations.

RECOMMENDATION 3: Establish and achieve short, medium and long-term targets for the reduction of air pollution.

RECOMMENDATION 4: Implement a national tax on polluters.

RECOMMENDATION 5: Recognize that Canadians have the right to live in a healthy environment.



David
Suzuki
Foundation

SOLUTIONS ARE IN OUR NATURE

2211 West 4th Avenue, Suite 219
Vancouver, BC, Canada V6K 4S2
www.davidsuzuki.org
Tel 604.732.4228
Fax 604.732.0752

