



Supporting Public Awareness Initiatives on the Health Effects of Climate Change and Air Pollution

S U R V E Y R E P O R T



*A Survey Conducted by the
Canadian Public Health Association*

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Overview of CPHA

- Incorporated in 1912
- National not-for-profit health association
- Represents over 25 health disciplines and the general public
- Governed by a 24-member Board of Directors
- Management board is 8-member Executive Board
- Conducts and supports health and social programs nationally and internationally
- Stresses partnership role with national and international NGOs, federal/provincial governments and private sector corporations
- Provides a “special” health resource at national and international levels of both professionals and non-professionals

Mission Statement

The Canadian Public Health Association (CPHA) is a national, independent, not-for-profit, voluntary association representing public health in Canada with links to the international public health community. CPHA's members believe in universal and equitable access to the basic conditions which are necessary to achieve health for all Canadians.

CPHA's mission is to constitute a special national resource in Canada that advocates for the improvement and maintenance of personal and community health according to the public health principles of disease prevention, health promotion and protection and healthy public policy.

An electronic version of this document is available at www.ccah.cpha.ca.

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This project was assisted by the technical and financial support of the Climate Change Action Fund of the Government of Canada.

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Acknowledgements

The Canadian Public Health Association (CPHA) wishes to express its appreciation to all the organizations and individuals who have contributed their time and effort to make this study successful. In particular, thanks to the members of the Advisory Committee for their time and expertise guiding the survey design, methodology and in providing comments and support throughout the project.

CPHA would also like to acknowledge the cooperation and assistance of Kerry Rhoades, Caryn Wolfe and Josée Leroux for management and administrative support at CPHA.

CPHA appreciates the technical and financial support of the Climate Change Action Fund of the Government of Canada.

Executive Summary

This report provides a discussion of the results from a 1999 survey sponsored by the Climate Change Action Fund in conjunction with the Canadian Public Health Association (CPHA) and Health Canada, and completed in partnership with the College of Family Physicians of Canada, the Canadian Nurses Association, the Canadian School Boards Association, Friends of the Earth and TransAlta Corporation. The survey, which was distributed to 195 education, environment, health and private sector organizations across Canada was designed in such a way as to provide interviewers and respondents with a guide to successfully complete the survey and provide relevant background information. In total, 188 surveys were completed over the telephone by interviewers. Care in ensuring reasonable sample size, sectoral distribution and selection procedures, particularly with respect to private sector participation, suggests that generalizations and conclusions on initiatives and opportunities are valid. The survey was designed to increase the understanding of public awareness initiatives linking health, climate change and air pollution and to provide the information required to more effectively raise awareness of these issues. Here are some key findings:

- The majority of organizations surveyed regarded the health effects of climate change and air pollution as major areas of concern. However, they noted a lack of awareness of the root cause of climate change as well as skilled human resources to convey this message.
- Few of the public awareness initiatives (PAIs) identified directly link the health effects of climate change and air pollution although many organizations indicated a willingness and opportunities to do so with existing and future PAIs. Most of the PAIs are devoted to the health effects of air pollution with less than 15% of organizations having developed any specific, official policy or position statement on the health effects of climate change.
- There is a need for well thought out and consistent messages to ensure the Canadian public receives consistent messages which are reinforced through a number of sources and channels. Messages must be written in plain language and accessible in a variety of formats including the internet and in print. Certain populations such as aboriginal peoples and other at risk groups including individuals with allergies, asthma and other chronic illnesses, are conspicuously absent from existing PAIs in this area.

- Because the health effects of air pollution and climate change are regionally unique, such variations should be considered when developing messages and approaches.
- There is a need for resource materials on the health effects of climate change and air pollution designed to educate health providers, (e.g. tools and resources for public health workers involved in school programs) and other audiences (e.g. youth, business, the public in general). In addition, it is important for CPHA to forge closer links with private sector businesses who are committed to environmental stewardship and to explore the extent of business involvement in environmental awareness initiatives.
- Organizations surveyed noted that the federal government is providing financial resources and some leadership; however, a central coordinating group or body was recommended to coordinate current and future PAIs in the health and environment area. Respondents noted that a coordinating body that could assist in matching organizations with complimentary capacity and strengths, is critical in developing and implementing effective public awareness initiatives. Such a coordinating body would also prevent duplication and lead to the more cost-effective use of resources.
- A lack of funding for the development of public education and outreach activities is evident. A lot of time and resources are spent developing proposals to secure funding for these activities, in particular among non-profit organizations. Although a number of the organizations surveyed have established networks for getting messages out, many indicated they lack sufficient human and material resources to do so.
- Those organizations who are involved in climate change and air pollution initiatives noted that the top three determinants of success in such initiatives are: effective partnerships, research and knowledge and adequate funding.

1.0 Introduction

There is compelling scientific evidence that damage to the earth's atmosphere, in the form of climate change and air pollution, will have increasingly severe impacts on the health of Canadians. Increases in carbon dioxide and other greenhouse gas emissions, and projected changes in the earth's climate could result in significantly increased health risks, and even deaths. Reduced food production and human migration resulting from temperature changes and decreased soil moisture are examples of how climate change can affect our lives. Air pollution is already taking its toll, with six percent of all respiratory admissions in Canadian hospitals related to smog.[†] Air pollution is also the cause of premature death for thousands of Canadians annually and is frequently related to allergic and cardio-respiratory disorders affecting thousands more.

The Canadian Public Health Association (CPHA), with funding from the Climate Change Action Fund and the support of Health Canada, is working in partnership with the College of Family Physicians of Canada, the Canadian Nurses Association, the Canadian School Boards Association, Friends of the Earth and TransAlta Corporation to develop a Public Education and Outreach Strategy that will support public awareness initiatives on the health effects of climate change and air pollution, with the ultimate aim of changing attitudes and encouraging responsible individual and group action to reduce greenhouse gas emissions.

CPHA's membership and Board of Directors have identified the environment as a key priority for the association. The aim of this report is to contribute to CPHA's efforts in furthering partnerships and developing strategies to address the threats to human health posed by climate change and air pollution. Specifically the report describes the findings of CPHA's survey of the health, environment, education and private sectors, and outlines what is already being done to inform children and adults about the impact of climate change and air pollution on health. The results of the survey will guide CPHA in establishing priorities for supporting public outreach initiatives on the health effects of climate change and air pollution.

1.1 Why focus on the health effects of climate change and air pollution?

CPHA believes that appealing to health concerns is an ideal way to reach many people on the climate change issue. Years of experience in health promotion have taught us that the health sector plays an important role in facilitating the societal and individual behavioural changes that can be fostered by increased knowledge and awareness.

[†] Pollution Probe, cited in Environment Canada, Canada's Transportation Challenge, 1996, p. 2.

Public health practitioners and our partners can contribute to this process by clearly making the links between climate change and air pollution in our public awareness efforts. We need to help individuals understand how air pollution affects their lives and health today, and how actions to reduce it will also lessen the negative effects of climate change in the future. As we have seen with many other health promotion and environmental issues, people tend to be more prepared to act on an issue when they perceive a direct and immediate threat to their personal health and well-being.

In addition, there are significant co-benefits to focusing on climate change and air pollution, in that other environmental and economic issues will be positively impacted by behavioural changes that are aimed at alleviating the health effects of climate change and air pollution.

By undertaking a national survey on climate change and air pollution, CPHA demonstrates that these are priority issues in public health, and this in turn sends a very strong message to the health sector, reinforcing the need for leadership, awareness and actions not only at the national level, but at provincial and local levels as well.

1.2 Why focus on the health, environment, education and private sectors?

1.2.1 The public health/health promotion sector

As a national association concerned with public health in Canada, CPHA supports its members and provincial and territorial public health branches and associations in their work of promoting healthy communities. Public health professionals are a key target group, both in terms of informing and influencing them, and in terms of gaining access to their broad client groups. Partnering with the Canadian Nurses Association (CNA), for example, means that we reach a key group of health professionals (nurses) who can pass along to their patients information on the serious impacts of air pollution on human health.

Given the significant educational role they play in schools and communities, public health organizations and practitioners are also strategically placed and uniquely equipped to inform adults and children about the impact of climate change and air pollution on health. CPHA is well positioned to play a key role in co-ordinating awareness-raising strategies on the health effects of climate change and air pollution through its member groups.

Recent studies have shown that effective health promotion work on environmental issues requires that public health workers (such as public health nurses, community development workers, health educators and medical officers of health) and all health professionals have access to more and better education and information resources. Our survey has revealed that there is indeed a need for health resource materials on climate change and air pollution designed to educate health providers, and for tools and resources that can be used by public health workers in educational programs in schools.

In particular, we have uncovered a demand for information on how climate change and air pollution fit into healthy environments within a health promotion perspective, and for scientific and medical information on health risks presented in a popular and accessible fashion. Information from the survey is indicating what kind of information is most urgently needed and what form that information should take.

Feedback from provincial ministries of health has also been critical in determining the extent of involvement and specific activities in developing public awareness strategies about climate change and air pollution. For example, the British Columbia Ministry of Health created the “Health Files” program that involves the publication of more than 100 one-page fact sheets on a wide range of public and environmental health and safety issues.

1.2.2 The environmental advocacy sector

CPHA believes that although much work is currently being done to integrate the environment and the economy in public awareness and action campaigns, there is an urgent need to more firmly incorporate human health and well-being into the overall picture. While the importance of health is often recognized, it is too often given low priority in discussions of the environment and economy.

Closer collaboration between the public health/health promotion sector and the environmental advocacy sector on public awareness initiatives is vital if we are to reinforce the critical connections between human and ecosystem health. Initiatives that focus exclusively on one or the other will have limited impact. In the medium and long term, the goal is to develop policy and practices that link health, the environment and the economy, and go beyond protecting health to preventing threats to health in the first place.

Working together with the health sector on public awareness campaigns has provided environmental groups such as Friends of the Earth and Pollution Probe with an opportunity to strengthen their understanding of the costs to human health

of environmental inaction. Public health/health promotion groups have also benefited from a chance to learn from the strategies and successes of our environmental partners in this project.

Municipal environment committees can exert a powerful influence on activities designed to raise public awareness and promote action. For example, in Toronto, the Environmental Committee is one of the most critical players on the local scene. Local committees such as these can serve as an effective channel for concern about the impact of emissions on the quality of life in the urban environment and can be a forceful advocate for policy changes at the municipal and other levels of government.

1.2.3 The education sector

It is today's children who will live with the results of worsening climate change and air pollution as adults in the 21st century. Thus, it is incumbent on Canadian society to educate children to actively participate in shaping their own destiny. As an example, tobacco control campaigns have shown how well-informed children can be extremely effective at influencing their parents to change their behaviour.

Schools have a vital role to play in teaching children how they affect the environment and how the environment affects them, especially when it comes to health. Increasingly, environmental issues are being taught in secondary schools and even in primary schools. Public health can play two important roles with respect to public awareness initiatives in a primary and secondary school setting. The first is to play a greater role in assisting educators to link the principles of human and ecosystem health in the curriculum. The second is to assist individual schools and educators by providing support and expertise (content knowledge) in the class room.

Our research has uncovered a number of organizations currently working to provide resources, training and activities related to climate change and air pollution. The key is to ensure that health messages are incorporated as a means of reaching school age children and making the issues relevant to them.

1.2.4 The private sector

The private sector has a crucial role to play in addressing the causes of air pollution and climate change. Business and industry are responsible for much of the fossil fuel combustion that creates air pollution and the greenhouse gases that cause global warming. Public awareness initiatives must involve the private sector. If we are to make real change, we need to establish closer links with those

companies that take their responsibility for environmental stewardship seriously and demonstrate this through concrete actions.

In this project, we would like to explore the extent of business involvement in environmental awareness initiatives. We know that some companies provide support through corporate giving programs and others do so by encouraging community action. Our goal is to identify firms that may be open to participating in our national strategy in support of public awareness initiatives on the health effects of climate change and air pollution.

1.3 What are the health effects of climate change and air pollution?

Over the past 100 years, increased fossil fuel combustion has led to a 30% rise in atmospheric concentrations of carbon dioxide, the main greenhouse gas. The Intergovernmental Panel on Climate Change (IPCC), made up of more than 2,000 of the world's leading scientific experts, has concluded that this build-up of carbon dioxide is accentuating the greenhouse effect, trapping heat and increasing global warming and climate change.[†]

In their 1995 Report on the Science of Climate Change, the IPCC stated that "Climate change is likely to have wide-ranging and mostly adverse impacts on human health, with significant loss of life."[‡] Indeed, the evidence in North America over the last decade lends credence to this statement. Rising temperatures have led to heat waves causing illness and death, particularly among the young, the elderly, the frail and the chronically ill.

Scientific projections indicate that climate change could affect the health and well-being of Canadians both directly and indirectly.[§] There are two types of direct health effects of climate change. The first are those caused directly by projected higher temperatures. Examples include the aforementioned increases in illness and death from heat stroke and dehydration. The second are injury, illness and death caused by projected increases in extreme weather, such as tornadoes, floods and winter storms.

[†] J.T. Houghton et al., eds. *Climate Change 1995 —The Science of Climate Change* (Cambridge: Cambridge University Press, 1996). (Volume 1 of the Report on the Intergovernmental Panel on Climate Change.)

[‡] J.T. Houghton, et al.

[§] Health Canada. *CAPITALizing on Science: Report of a Workshop on Climate Change, Science and Health*. Canadian Journal of Public Health 1999;90(6):13-18

Climate change could also have significant indirect health effects, as changes in climate trigger other changes that could affect health. An example would be the transmission of infectious diseases such as malaria, dengue and yellow fever as insects carrying diseases migrate northward into the Canadian climate.

Another potential indirect health effect of climate change is increased illness related to air pollution. Fossil fuel use produces two main greenhouse gases (GHGs): carbon dioxide and methane, neither of which directly cause air pollution. However, fossil fuel use also produces other by-products which do cause air pollution, such as smog. As well, increasing temperatures anticipated with climate change can serve to magnify the effects of pollutants already in the air.

Children, the elderly, and people suffering from cardio-respiratory problems, are at highest risk of experiencing adverse health effects due to air pollution, even at today's levels. Projections of more frequent and severe heat waves due to future climate change indicate that this air pollution problem may worsen.

It is projected that many larger Canadian cities could expect to experience a significant rise in the number of very hot, smoggy days, with more and longer heat waves. This increase in hot weather, combined with an aging population, is expected to result in an increase in heat-related deaths in urban centres.

Projections of more frequent and severe heat waves and humidity could lead to increases in smog and air pollution advisories. Increases in pollens and mold spores would compound the situation and affect those with cardiovascular disease, respiratory disorders such as asthma, emphysema and chronic bronchitis, and allergy problems.

Trees and other vegetation that give rise to allergenic pollens grow more profusely in a warmer climate. When combined with smog and other atmospheric pollutants, illness from allergic respiratory disease, particularly asthma, could increase.

Projections of frequent and extreme weather events such as floods, droughts, hurricanes, and tornadoes are of concern as these could increase deaths, injuries, infectious diseases (with contaminated run-off affecting water supplies) and stress-related disorders associated with social disruption and environmentally forced migration.

The quality and the quantity of drinking water could decrease as water sources in some areas become threatened by drought. Health disorders related to

environmental and water contamination by bacteria, viruses, protozoa and parasites could also increase.

Many Aboriginal communities that follow a traditional diet based on hunting, fishing and other resource-based activities, could be vulnerable to health problems due to predicted changes in the amount and distribution of wildlife, fish and vegetation.

The projected health-related effects of climate change and the need for various adaptation strategies, such as expanded vigilance and medical services, health monitoring, environmental management, disaster preparedness and improved water and pollution control, could add to Canada's health care costs. With research, planning and preparation, some projected impacts of climate change can be minimized.

2.0 Methodology

The purpose of this project was to determine the extent of public awareness initiatives that make the link between climate change and air pollution, and human health, in order to inform and support the efforts of CPHA and potential partners in creating, supporting and strengthening public outreach initiatives on the health effects of climate change and air pollution.

2.1 Main objectives and activities

There were five main objectives of the project that corresponded with three distinct phases of work:

Phase I: Design and conduct a cross-sectoral survey

- 1) A survey of stakeholder organizations from key sectors was undertaken in order to investigate the scope and depth of current public awareness initiatives on the health effects of climate change and air pollution targeted to the general public and to primary and secondary students, and to identify needs for support.

The groups surveyed were from the following four sectors:

- the public health/health promotion sector (health professional associations, provincial and territorial branches and associations, national and provincial voluntary health associations, provincial and territorial ministries of health);
- the environmental advocacy sector;
- the education sector (primary and secondary);
- the private sector.

Phase II: Analyze and disseminate survey results

- 2) Tools and resources needed by the organizations (such as information, funds, partnerships and other types of support) to more effectively carry out existing public awareness and educational initiatives or launch new ones were identified.
- 3) Key organizations and strategies that could be reinforced or replicated were identified.
- 4) Opportunities for creating linkages and partnerships and for leveraging resources (particularly with the private sector) were identified.

Phase III: Develop a public education and outreach strategy to create, support and strengthen public awareness initiatives on the health effects of climate change and air pollution

- 5) The survey results will serve as the basis for developing a public outreach and education strategy to create, support and strengthen public awareness initiatives on the health effects of climate change and air pollution. This strategy will harness the collective expertise, energy and commitment of key stakeholder organizations across Canada to reach the general public and primary and secondary school students.

The information from the survey will allow CPHA to target areas where resources and efforts will be most cost-effectively directed. These are: a) critical needs and gaps; b) successful initiatives that can be built on or replicated; c) areas where linkages and partnerships can be effectively nurtured and resources leveraged.

The approach undertaken reflects CPHA's firm belief that to be cost-effective and sustainable in the long term, efforts to support public awareness initiatives on the health effects of climate change and air pollution should be co-ordinated, coherent, collaborative, cross-sectoral and built on sound information.

This approach has also put CPHA in a better position to meet real needs, avoid the inadvertent duplication of initiatives and identify resources to leverage in the future – all of which will optimize the use of public funds. Having a firm grasp of the lay of the land will facilitate in the design and implementation of a public education and outreach strategy that is coherent and co-ordinated.

It should also be emphasized that the survey process itself was designed to serve as an awareness-raising activity for the organizations contacted.

2.2 The cross-sectoral survey

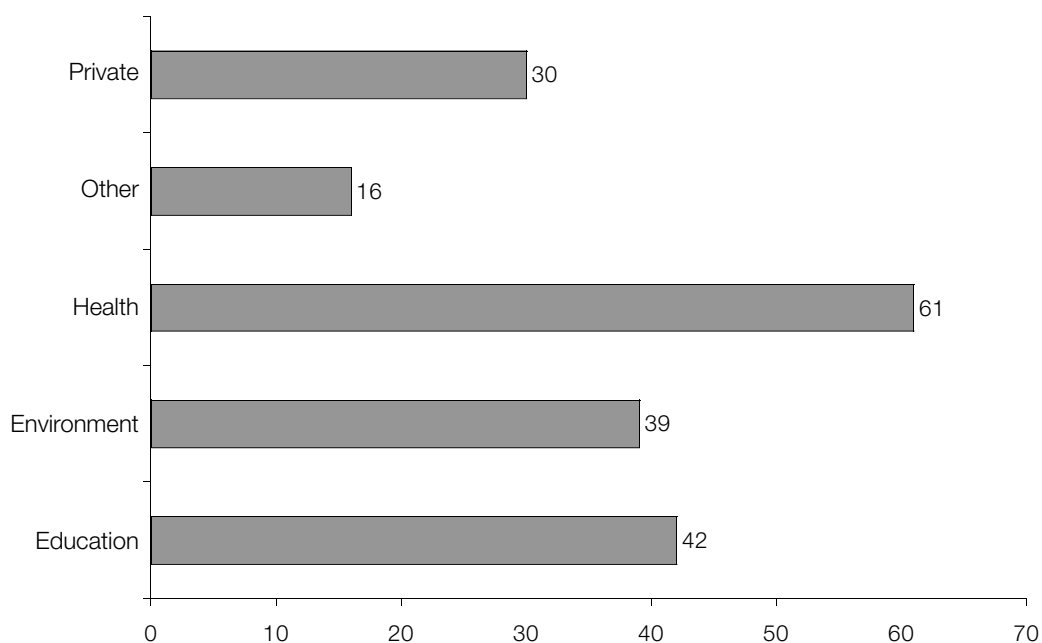
In total, 188 surveys were completed over the telephone by selected interviewers. The questionnaire package was designed in such a way as to provide interviewers and respondents with a guide to successfully complete the survey and provide relevant background information. The package provided examples of the types of information we were looking for, and contained probes in key areas to elicit the desired information. In the past, CPHA has found the response rate of telephone surveys to be significantly higher than that of mail-in surveys. Another important advantage of this approach was that the interviewer was able to provide as much clarification as was necessary to enable the respondent to provide as full an answer as possible.

A master survey list of organizations was compiled for each sector based on feedback from the Advisory Committee members, and using contacts in organizations representing the four sectors surveyed. For its part, CPHA had an extensive database of organizations involved in public health and health promotion activities. Lists of environmental organizations were developed with the help of the Canadian Environmental Network and its affiliated provincial networks. Education sector respondents were identified in collaboration with the Canadian School Boards Association, while the private sector respondents were identified by contacting relevant industry representatives who had participated in previous Environment Canada projects.

Given that the goal was to determine needs and identify existing initiatives, every effort was made to ensure that the survey included organizations that were active in the relevant areas. The target number of organizations that were to be surveyed was as follows: public health/health promotion sector – 100; environment sector – 100; education sector – 75; and private sector – 25, for a total of 300.

The initial list of organizations identified through the means described earlier totalled 282, and broke down as follows: public health/health promotion sector – 83; environment sector – 44; education sector – 60; private sector – 41; and others – 54. Of that total, 195 responded that they would be willing to participate in the survey. Those that declined were asked to provide a reason, and this information was documented in the organization's file. The non-response rate of the respondents who were willing to participate was 1 per cent. Of the 188 organizations surveyed, the number of interviews conducted by sector were as follows:

Exhibit 2.1 Sectoral Distribution of Survey Respondents



The results of the survey were instrumental in providing the indicative conclusions discussed later in the report. Care in ensuring reasonable sample size, sectoral distribution and selection procedures, particularly with respect to private sector participation, suggests that generalizations and conclusions on initiatives and opportunities are valid.

To account for changes in the distribution of respondents in the four sectors due to non-responses, relevant respondents were added to the list during the course of the project, as we became aware of them through referrals from other groups contacted.

2.3 Questionnaire development

The questionnaire underwent review by the Advisory Committee, and was developed based on their comments, as well as comments from a survey development consultant. The final version was based on this feedback, and on the results of the pre-testing.

The questionnaire was designed to solicit information in the following areas:

1. Organizations active in environmental issues
2. The health effects of climate change
3. The health effects of air pollution

4. The National Climate Change Implementation Strategy
5. Sectoral role in public awareness on the health effects of climate change and air pollution
6. Public awareness initiatives to address the health effects of climate change and air pollution.

The main questionnaire included 28 questions and was written in English and French. An information form was added to capture more information on public awareness initiatives for those respondents who were directly involved in awareness-raising activities. The questionnaire and information form were mailed out following delivery of letters informing organizations of the purpose of the survey and soliciting their participation. Notes and instructions were provided to interviewers, and a pre-test was performed to determine and test operational aspects of the survey organization and questionnaire design. During the telephone interviews, the objectives of the study were further explained and the questionnaire completed.

Validation of the completed questionnaires was conducted by the supervision of the interviewers and by the control of internal consistency and completeness of the filled questionnaires. In addition to scrutinizing specific questions, the responses were also checked to make sure that the follow-up forms on public awareness initiatives were completed by the relevant respondents. Data processing was completed internally by project support staff on a Mac PC using FileMaker Pro. Data were exported and tabulated in Excel.

2.4 Limitations and strengths of the approach

Some difficulties were experienced in collecting specific detailed information on public awareness initiatives. These are described below:

2.4.1 *The survey*

The division of the questionnaire into the main section and the public awareness initiative form proved to be confusing for some respondents.

Some of the respondents failed to provide the detailed information on the public awareness initiative form.

This required further intervention and communication on our part to ensure that the forms were completed and received. A follow-up strategy involving telephone and fax messages was successful in generating some of the responses to this section of the questionnaire. This made the task of verifying the completed questionnaires to ensure consistency all the more important.

2.4.2 *The website*

The website was an important means of providing information and sharing resources, including project-specific activities such as distributing summary reports, as well as more general information related to raising awareness of the issues to a broader audience.

2.4.3 *Strengths of the process*

Some of the recurring feedback solicited from respondents when asked about the survey design and CPHA's involvement in this area are listed below:

- The survey was well designed, clear and timely
- The questions were appropriate
- The telephone survey provides an improved response on content.

The majority of organizations surveyed were very supportive of CPHA's involvement in this area. There are numerous means and opportunities for partnerships and collaboration amongst these stakeholders (see section 4.0).

2.4.4 *Gaps in information*

In developing a public education and outreach strategy, First Nations people and other vulnerable groups should be consulted.

3.0 Findings

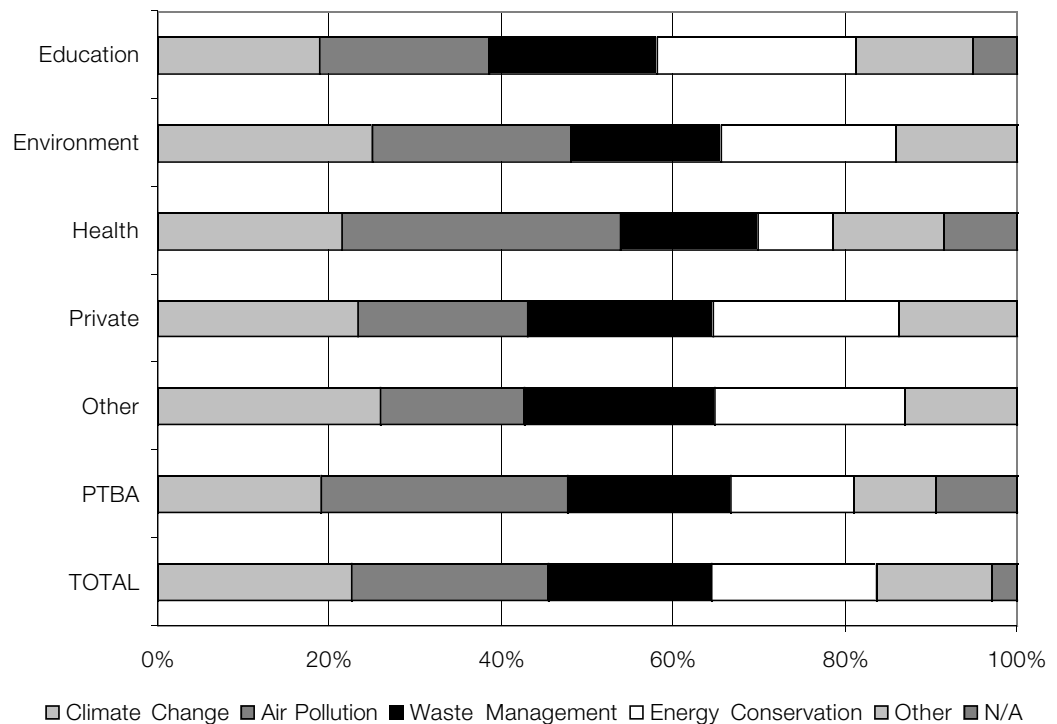
3.1 Profile of organizations active in environmental issues

3.1.1 Areas of environmental work

The results revealed that climate change and air pollution are the two main areas of work among the organizations surveyed, with over 120 organizations responding that they are active in each of these two areas. More than 100 of the 188 organizations surveyed identified waste management as a priority, and roughly the same amount were active in the energy conservation field.

As illustrated in Exhibit 3.1, of the 188 organizations surveyed in all sectors, the majority are active in environmental issues related to climate change and air pollution. Energy conservation and waste management also feature as main areas of interest, particularly among environmental and private sector organizations.

Exhibit 3.1
Areas of Environmental Work by Sector

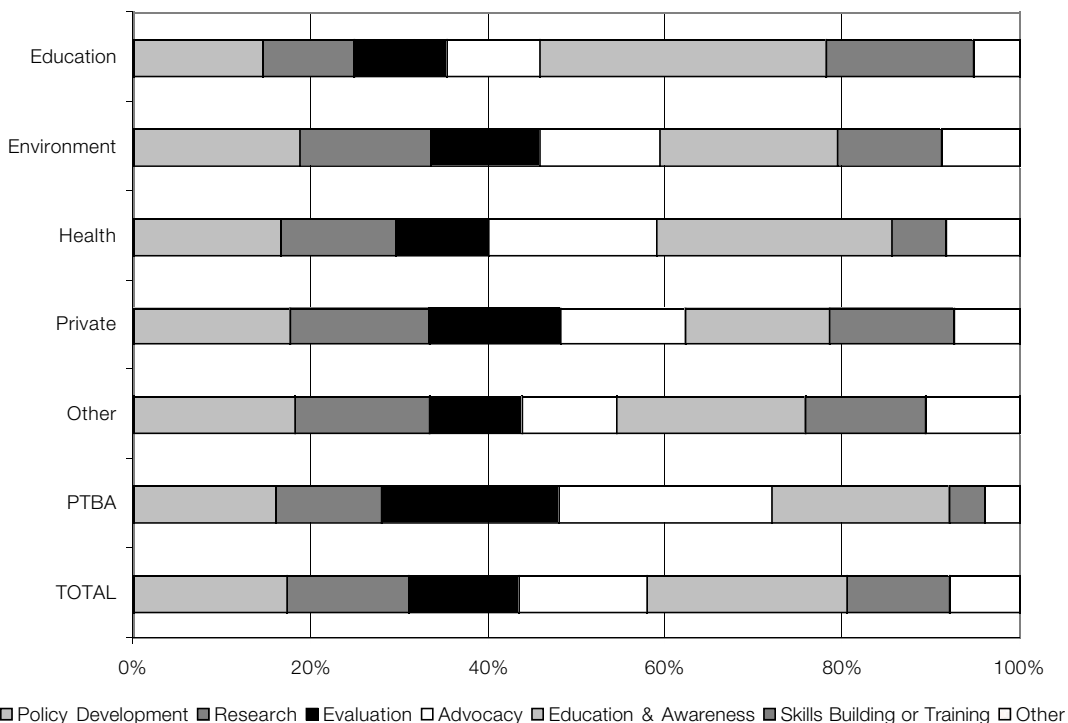


These results indicate that the two areas of concern in this project were adequately represented by the survey sample.

3.1.2 Type of work undertaken

As indicated in Exhibit 3.2, the type of work undertaken by organizations active on environmental issues was roughly evenly distributed between policy development, education and awareness, advocacy and research. Skills building or training, and evaluation followed closely in frequency.

Exhibit 3.2
Type of Environmental Work Undertaken by Sector



The survey confirms our belief that policy development, research, advocacy, education and awareness are key priorities for the respondents and form an important part of the environmental work of the organizations selected in the four sectors.

3.2 The health effects of climate change and air pollution

3.2.1 Distribution and degree of seriousness of the health effects of climate change and air pollution

As indicated in Exhibits 3.3 and 3.4, a majority (70%) of respondents regard the health effects of climate change as a problem, with 95% of organizations indicating that they felt the problem was either very serious (50%) or moderately serious (45%). The number of respondents who could not say whether climate change poses health threats was 16%, while 13% believe that the health effects of climate change do not represent a problem.

Exhibit 3.3 Are the Health Effects of Climate Change a Problem?

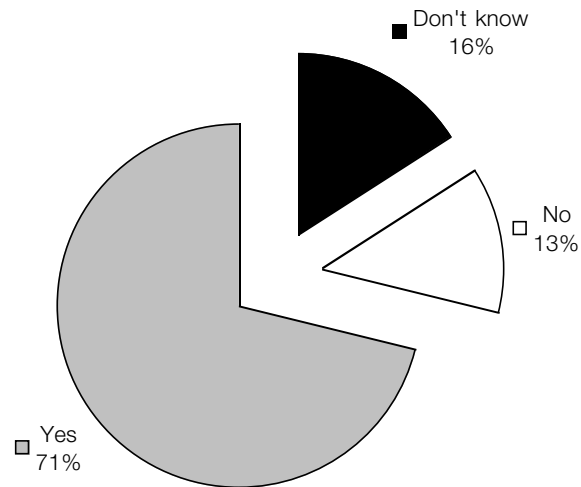
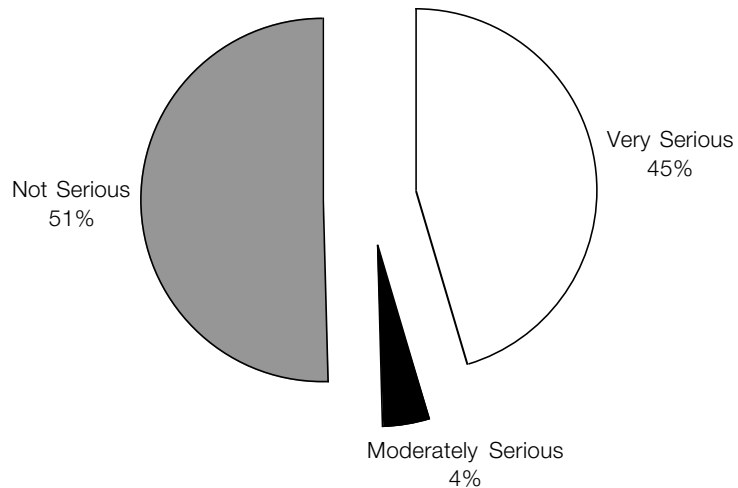


Exhibit 3.4 How serious?

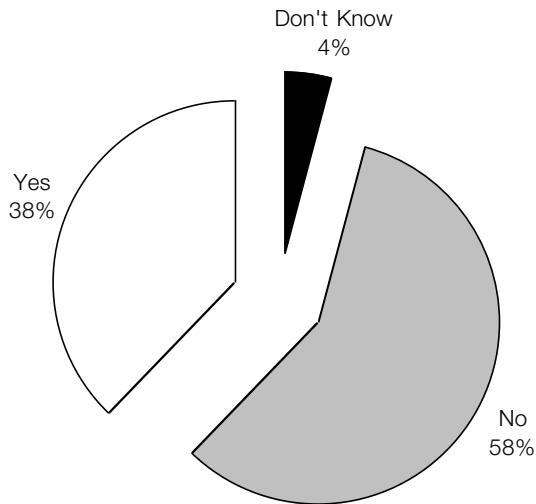


Despite perceptions of the extent and seriousness of the problem, only 24 of the organizations surveyed (less than 15%) had developed any specific, official policy or position statement on the health effects of climate change. As discussed later in the report, this may reflect the quality and nature of the available information, and the scarcity of resources that organizations have to devote to this matter. Nonetheless, slightly more than 20% of respondents did indicate that they currently had a budget for developing public awareness initiatives on the health effect of climate change. The distribution of these initiatives across the sectors surveyed is presented in Table 3.3.

3.2.2 Distribution and target audience of public awareness initiatives

The survey revealed that more public awareness activities are focused on air pollution than climate change. Of the 188 organizations surveyed, less than half indicated that they had directly undertaken any public awareness initiative to address either of these issues. With respect to climate change, only 34 organizations (20%) had directly undertaken to raise awareness (Exhibit 3.6). The figure for air pollution is more than double that for climate change, with 63 (38%) organizations surveyed indicating that they had directly undertaken to raise awareness of this issue (Exhibit 3.5).

**Exhibit 3.5
Air Pollution Public Awareness Initiatives**



**Exhibit 3.6
Climate Change Public Awareness Initiatives**

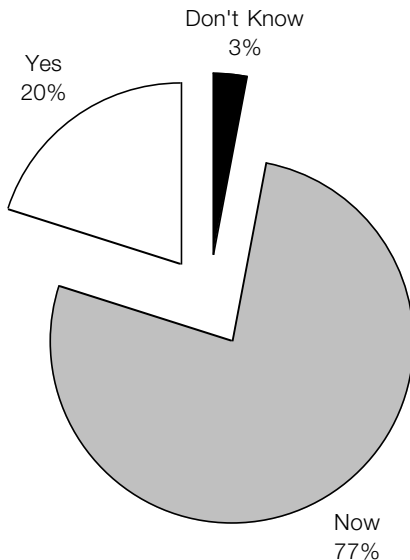


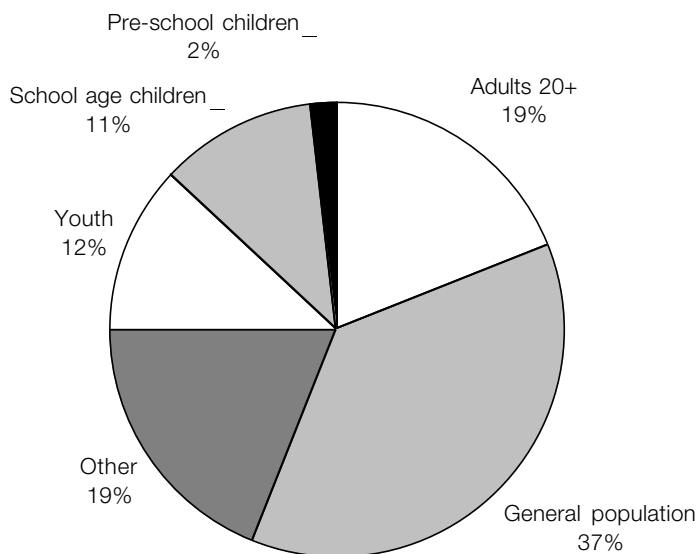
Table 3.1 summarizes the distribution of initiatives across the four sectors surveyed. Some 97 organizations have been directly involved in launching public awareness initiatives. As might be expected, the environment sector is most active in launching awareness activities on these issues. The health sector is also active in these areas, particularly with respect to air pollution, where direct health consequences are most evident. The private and education sectors appear to be less involved in direct initiatives to raise awareness.

Table 3.1
Sectoral distribution of public awareness initiatives

| | Education | Environment | Health | Private |
|----------------------------|-----------|-------------|--------|---------|
| Climate change initiatives | 5 | 13 | 9 | 3 |
| Air pollution initiatives | 4 | 23 | 19 | 9 |

As illustrated in Exhibit 3.7, 37% of all public awareness initiatives were targeted at the general population, followed by adults over 20 years of age (19%), youth (12%), school age children (11%) and pre school children (2%).

Exhibit 3.7
Target Audience of Public Awareness Initiatives



Other targeted groups include:

- teachers, educators and other caregivers of children;
- policy-makers and political decision-makers;
- labour and environmental interests;
- health professionals and physicians; and
- specific risk groups such as adults over 65 years of age and asthmatics.

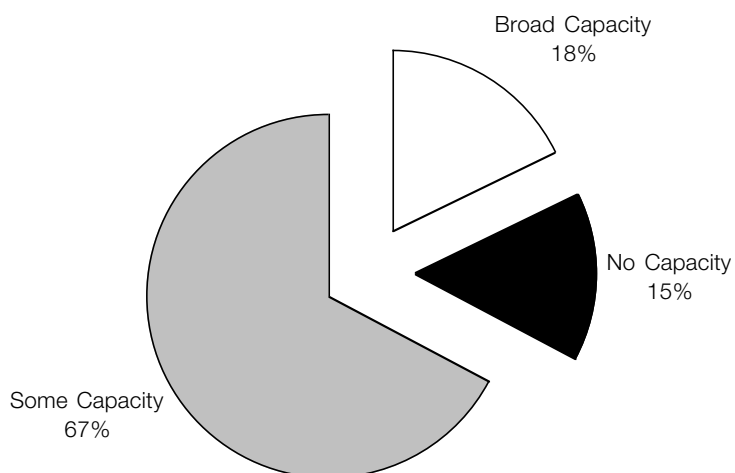
With respect to factors that were instrumental in the success of both climate change and air pollution initiatives, the survey revealed that partnerships, research and knowledge, and funding were the top three determinants of success. Public interest, leadership and human resources were also identified as important factors in the success of awareness initiatives. These results are in line with expectations regarding the importance of clear research and knowledge in communicating with the public on these issues, as well as the critical role of partnerships in developing and supporting awareness-raising initiatives.

3.2.3 Capacity to advance public awareness initiatives

Many of the respondents indicated that they had developed networks and had the capacity to get messages out to members, the public and constituent groups. However, many indicated that they did not have the required monetary or human resources to do so. As a result, respondents suggested that partnerships would be critical in developing and implementing public awareness initiatives, particularly in matching organizations whose capacity and strengths are complementary. Some of the respondents specifically mentioned that they would be interested in working with CPHA in this regard.

In general, there appears to be a fairly high capacity to get messages out to the general public and members of specific associations and groups. As indicated in Exhibit 3.8, a significant number of respondents (70%) indicated that they had some capacity to advance public awareness messages. Fewer than 20% had no capacity to do so, while just over 10% felt that their organizations had a broad capacity to support public awareness initiatives. The large proportion of organizations that had some capacity to advance public awareness support the notion that most respondents feel they are able to take advantage of existing networks, memberships or key stakeholders to deliver messages in these areas.

Exhibit 3.8 Capacity to Advance Public Awareness Initiatives



Some of the key requirements identified by respondents to improve their organizations' work on the health effects of climate change and air pollution are:

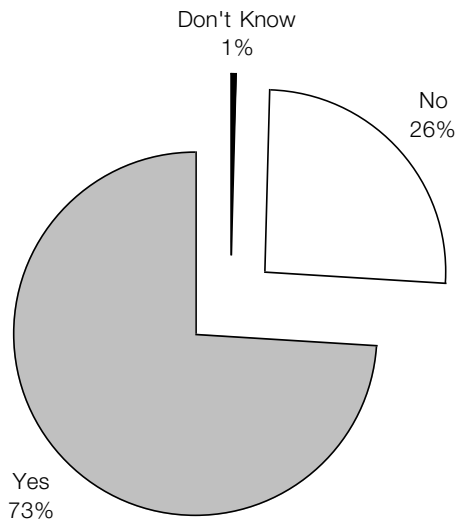
- funding;
- partnerships;
- research and knowledge; and
- human resources.

Gaps listed in these areas indicate that there are opportunities for linkages based on mutual strengths and areas where weaknesses in one organization could be complemented by the particular strengths of others.

3.3 Awareness and participation in the National Implementation Strategy on climate change

The National Implementation Strategy on climate change, the federal government's response to the Kyoto Protocol, is scheduled to be completed by 2000, and will include recommendations made by experts from 16 "Issue Tables", ranging from public education and outreach, to business and industry, on what Canada should do to meet the Kyoto targets. A majority of survey respondents were aware that the National Implementation Strategy on climate change is in progress. One quarter of the respondents were not aware of the strategy's existence.

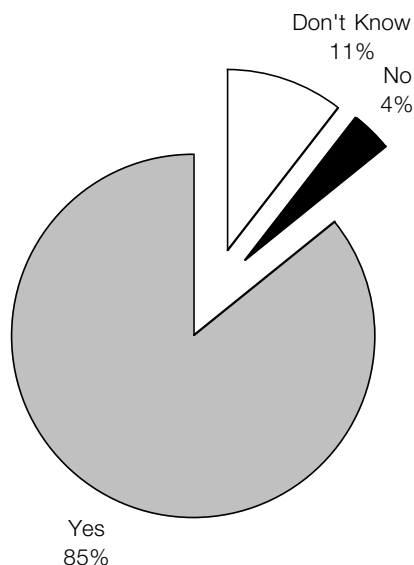
Exhibit 3.9 Awareness of National Strategy



Although there was a high level of awareness of the strategy itself, over half of the organizations surveyed were not involved in the national process (54%). This is likely due to the fact that the organizations surveyed were represented not just at the national level, but also at provincial, territorial, municipal and local levels. Many respondents would not have had the representation at a national level which was required to participate. Nonetheless, most organizations felt it was important to become engaged in the issues, with 74% responding that they would be interested to participate in the strategy consultations likely to be conducted in 2000. Most respondents (85%) also felt that public awareness and education on the health effects of climate change and air pollution should be included in a national strategy on climate change.

Exhibit 3.10

Strategy Should Include Public Awareness and Education



3.4 Sectoral participation in public awareness initiatives on the health effects of climate change & air pollution

3.4.1 Key means of participation by sector

As might be expected, the main area in which respondents in the education sector envisioned most effectively participating in public awareness strategies was in terms of developing material and resources for use in the formal education system. Responses from this sector could be generally grouped into the following categories:

- curriculum development and implementation;
- development of instructional resources and materials;
- communication with educators through membership lists and events.

With respect to the respondents from the environment sector, most felt that their particular strengths were in reaching individuals and decision-makers through outreach, education and advocacy. In general, the following areas were consistently identified as areas where efforts to raise awareness by environmental organizations could be most effective:

- outreach and education to members, stakeholders and the general public;
- policy input and advocacy;
- building partnerships.

Similarly, health sector respondents identified information dissemination and outreach as strengths particular to their sector. Existing networks within this sector

are well established, and could be most useful in furthering the development of awareness initiatives by taking advantage of strengths in the following areas:

- national, provincial/territorial and community-level reach through the public health sector
- information dissemination and education (e.g., health professionals, schools, patients)
- lobbying decision-makers and raising awareness from a credible yet neutral point of view (e.g., as information brokers working through professional member groups).

In terms of private sector strengths, most indicated that they were particularly effective in a behind-the-scenes capacity as advisors, funders, partners, and stakeholders in development of awareness initiatives and environmental standards. Many indicated a focus on individual actions to effect changes in behaviour, for example, in transportation use and energy efficiency. A concern for meeting environmental goals and determining the resultant health co-benefits without compromising competitiveness and economic productivity was also prevalent in the responses.

3.4.2 Opportunities in the next year

Opportunities for developing public awareness initiatives in the next year range from presenting material at workshops, campaigns and meetings of associations and their memberships, to specific national and international conferences to raise awareness of these issues. Some of the main activities planned at this level in the coming year include:

- The 11th Global Warming International Conference and Expo (Kyoto compliance review year 2000), April 25-28, 2000
- The Millennium International Children's Conference on the Environment, May 22-24, 2000
- Canadian Environment Week, June 4-10, 2000
- Beyond 2000: Healthy Tomorrows for Children and Youth, June 14-18, 2000
- Climate Change Communication Conference, June 22-24, 2000
- Roundtable on Health and Climate Change, September, 2000
- CPHA 91st Annual Conference, October 22-25, 2000

3.5 Overview of reported public awareness initiative forms

The findings in this section were derived from returned public awareness initiative (PAI) forms, a part of the survey tool. Some organizations surveyed may have public awareness initiatives in place but declined to report on them. A few

organizations completed and reported on public awareness initiatives that are either in a proposal stage or in development and soon to be available.

3.5.1 Types of public awareness initiatives

The range of different public awareness initiatives reported is extensive, although only a limited number of PAIs directly make the link between the health effects of climate change and air pollution. Nonetheless, it is apparent that there is potential for further work in the development of PAIs that do make these links. Ninety-seven PAI reports were received, describing initiatives ranging from stationary displays to travelling educational workshops, and from mailed brochures to interactive websites. *Appendix E* provides a summary of PAIs by sector and by level.

Below is a comprehensive list of the types of PAIs reported:

Materials/products

- film and video material;
- newsletters, articles, brochures, posters, booklets, bookmarks, manuals, inserts, reports and fact sheets;
- curriculum material and teacher's guides;
- tool kits, project packs and case studies;
- transit system advertizing, display booths and accompanying materials;
- games and other activities;
- web pages with interactive tools, internet bulletins and on-line 'Health Files';

Programs/campaigns

- conferences;
- annual campaigns;
- face-to-face meetings
- Mayor's environmental awards;
- media coverage including: public service announcements (print), TV, radio, newspaper, interviews, trade shows, workshops, presentations to schools and groups, working groups, press releases.

In terms of the types of PAIs reported, the majority of initiatives consisted of specific materials or products available for distribution. This included materials such as brochures, posters or websites. Other types of initiatives reported on at a campaign or programming level included conferences and annual campaigns.

Many PAIs reported were intangible (e.g., workshops, conferences or working groups) and do not have any accompanying resources or materials. The majority of PAIs however, were geared to the creation of a tangible product or resource

such as a brochure, educational “tool kit” or website. Most PAI resource materials (often the PAI itself) are available free of charge or for a moderate fee. Although the majority of distributable resources are available to the general public, some were limited to specific working groups or other specifically defined audiences. For those tangible PAIs and their accompanying resources, the following methods of distribution were most prevalent:

- doctor’s offices
- schools
- public offices
- libraries
- bus and subway stations
- government book stores
- internet, mail, fax, e-mail
- workshops.

Survey findings and PAIs reported have identified organizations that are actively engaged in or developing public awareness initiatives on the health effects of climate change and air pollution. These organizations are important, both in their experience and capacity to provide information on the issue. A solid base of information was gathered from the returned PAI forms outlining current initiatives and the kinds of barriers organizations face in implementing them. The types of support and resources they require were also identified. As previously mentioned, few PAIs directly link the health effects of climate change and air pollution, although many organizations indicated willingness and opportunities to do so with existing and future PAIs.

3.5.2 Strengths of initiatives

Overall, organizations that reported PAI information, whether they directly made links to climate change, air pollution and human health or not, typically demonstrated a capacity to disseminate information and to further public education and awareness. In addition, much creativity and originality was reported through the wide variety of PAIs.

Many of the initiatives are based on extensive research and knowledge. Because of this, the future development of PAIs need not waste valuable time and resources in this area. Current information can be identified, gathered and adapted to other projects.

Several partners were reported which would suggest that strong networks are in place. These networks can be further developed and strengthened. Partnership

opportunities became apparent in the reports and are presented in *Appendix F. List of Key Organizations by Sector*.

On a regional level, specific PAIs were reported that focus on regional challenges of climate change and air pollution. This kind of work is to be encouraged as our understanding of the regional ramifications of climate change become better known.

3.5.3 Barriers to implementation

Although a wide range of initiatives currently exist, many more are needed that effectively incorporate health messages and raise the awareness of Canadians from all walks of life. A combination of factors including lack of knowledge, funding, resources and leadership will continue to thwart efforts to achieve greenhouse gas emission reductions set by the Kyoto Protocol if not addressed.

A lack of awareness and basic understanding of the root cause of climate change is evident as well as the skilled human resources needed to convey this message. Funding is often a barrier, especially for non-profit organizations, as much time and resources are used to secure funds even though there may only be enough for a limited period of time. A coordinating body and strategy is needed to prevent duplication of resources to and ensure cost-effectiveness among the four sectors.

While climate change, air pollution and the accompanying health effects are complicated issues, a comprehensive, well-coordinated health promotion program involving intersectoral partnerships should focus on simple, straightforward messages. In order to capture the attention of its audience, PAIs need to be well thought out and consistent in their messages. Particular attention will need to be focused on evaluating PAIs and measuring their success in effecting behaviour change.

Certain populations are noticeably absent as a target audience of existing PAIs and present unique challenges to PAI development and success. Aboriginal populations and marginalized or uniquely susceptible groups should be consulted and appraised of the health risks associated with climate change and air pollution. Messages must be accessible to all in plain language, and in a variety of formats, such as print and internet.

Regional variations in approaches must also be considered. The health effects of climate change and air pollution are regionally unique, and Canadians must receive information specific to their geographic region and climate.

3.5.4 Resources and support required

Organizations require more knowledge, resources, funding and coordinated efforts to ensure the success of their PAIs. Although the federal government is providing financial resources and some leadership, there is a sense that overall leadership is lacking in the coordination of current and future PAIs. A central coordinating body or group could offer a starting point to match organizations according to strengths and weaknesses.

At a basic level, organizations need to have an understanding of why this issue is so important and of its root cause. Well-informed and highly skilled educators are needed to instill this idea with messages that resonate for individual audiences.

More specifically organizations need more knowledge about the links between climate change and air pollution. Several organizations reported PAIs that dealt with air pollution. There is a tremendous opportunity for these organizations to make the link. Renewable energy companies might assist in this.

Although PAIs were very creative, few provided really practical tools that measure individual change or progress. More private sector involvement and the coordination of existing networks is required to ensure the success of PAIs.

4.0 Conclusions

The survey has allowed us to canvass the needs of organizations, firms and schools directly, and has provided a clearer picture of what is already being done to inform children and adults about the impact of climate change and air pollution on health. We have developed a solid base of information on the kinds of educational initiatives that currently exist, as well as discovering what kinds of barriers organizations face in implementing them, and what kinds of support and resources they require.

The survey revealed that a majority of the organizations surveyed regard the health effects of climate change and air pollution as a major area of concern. However, most of the public awareness-raising activities are devoted to the health effects of air pollution with less than 15% of organizations having developed any specific, official policy or position statement on the health effects of climate change.

The survey also revealed that the organizations had established effective networks to get messages out to members, the public and constituent groups. However, many indicated that they did not have sufficient monetary or human resources to do so. As a result, respondents suggested that partnerships, matching organizations with complementary capacity and strengths, are critical in developing and implementing effective public awareness initiatives.

The conclusions of the survey indicate that:

1. There is a vast resource of organizations with networks and interest in delivering information and public awareness messages on the health effects of climate change and air pollution.
2. There are opportunities for information sharing and partnerships and collaboration among organizations and between these organizations and CPHA.

There is a need to consolidate messages and resources on the human health effects of climate change into a format that can be easily accessed and delivered by organizations. A cross-sectoral approach to implementing a public education and outreach strategy which builds on the strengths, best practices and initiatives in each sector is critical to deliver these messages. The following sections outline some of the opportunities at various levels across these sectors.

4.1 Environmental sector

According to the survey findings, national environmental organizations have a wide reach and more PAIs in affect than any other sector. A few organizations should be noted for PAIs that specifically focus on and make the link between climate change and human health. They are The David Suzuki Foundation, Sierra Club, Greenpeace and The Pembina Institute. Other organizations may make this link in some of their materials or resources (websites for example) but not with the same degree of focus or concentration to date.

There appears to be an opportunity at the national level to present a more unified message about the health effects of climate change and air pollution to the Canadian public. Certainly, our survey results would indicate that enough organizations are concerned about these issues to warrant a more consolidated effort. Approximately 70% of organizations surveyed considered the health effects of climate change to be a problem, with 95% saying that the problem was very serious to moderately serious. Given that a great deal of information currently exists and that national organizations already have active and sizable networks in place, partnerships in this sector might be able to progress more rapidly than in others.

In particular, the health sector could play an important role in partnering with environmental groups to promote the health message about climate change. Promoting a healthy environment must include the “human environment” or the “we (humans) are the environment” message as well.

Earth Day is just one example of a national environmental effort with a wide audience that might be able to incorporate a strong health message into current and future PAIs.

In addition, several organizations have websites where the health message could be added.

As reported in the main findings of the survey, the environmental sector indicated that its strength overall lay in reaching individuals (the general population) and decision makers through outreach, education and advocacy. The sector is also involved in policy making. The Canadian Environmental Law Association (CELA) and The National Round Table on the Environment and the Economy both work in the policy development area and might be able to do more to promote the health message.

At the provincial level, environmental organizations and ministries are raising public awareness through a variety of PAIs that include a regional focus on the problem.

Not as many initiatives exist at the provincial as compared to the national level. With some notable exceptions, opportunities exist for provincial governments to do more to specifically focus on health and promote individual action.

Collaboration between provincial environmental ministries/departments and provincial health departments and public health branches would provide an excellent opportunity for elevating the awareness needed at a regional level. Policy development is also needed.

The Clean Nova Scotia Fund reported a video series PAI with four different titles, linking climate change to issues such as transportation. No video appears to make a direct link to health.

Overall the environment sector provides strong opportunities for partnerships with all other sectors.

4.2 Health sector

Although a number of PAIs were reported from the health sector, only one mentioned climate change in its title. Most PAIs addressed issues such as sun exposure and skin protection, indoor and outdoor air quality and smoking. Opportunities exist to incorporate the climate change and health message into current or planned PAI materials, especially those that deal with air pollution and sun exposure.

The health sector has a wide national audience and is historically well established to successfully disseminate information to the Canadian public either directly or through health care workers.

CPHA's work to date with The Canadian Nurses Association, The College of Family Physicians of Canada, and the connection to the Canadian Association for Physicians for the Environment provides a strong basis for the planning of future partnerships with other sectors and PAIs.

At the provincial level, the health sector needs to do more in order to raise the awareness of its constituents. Cut-backs may be affecting the lack of PAIs which address climate change and health at this level. A significant opportunity for CPHA at the provincial level lies with informing and engaging its Provincial/Territorial

Branch Associations in efforts to convey health messages, promote educational programs and advocacy for public health workers and health professionals.

Municipally, several smog advisory and air quality PAIs currently exist and provide an excellent opportunity to link and promote the health and climate change issues for future work.

PAIs should be action-oriented and directed to individuals. The Vancouver/Richmond Health Board reported two PAIs that address climate change and greenhouse gases. More information is needed to determine whether or not links to health are addressed in these PAIs.

There are numerous opportunities to inform health care workers about the health effects of climate change and air pollution. Partnerships with the environmental community would help to increase the knowledge base in the health sector about these issues, and would raise awareness in the health community regarding general links between environment and health.

4.3 Education Sector

While the education sector can play a key role in disseminating health-related information, work is needed to coordinate and promote the issue of the health effects of climate change and air pollution. This is a vital sector to engage since the education of young people has the double effect of educating both future decision makers and their parents.

The greatest opportunities may exist either in developing strategies at the local school level or in supporting organizations that are active at a broader curriculum level. The education sector tends to be highly fragmented at all levels of government. Rather than trying to coordinate efforts at a provincial level, it may make sense to approach individual school boards and to work with existing networks developed at the local level. Educators need to have access to information and materials and other resources that will allow them to raise awareness of these issues.

4.4 Private sector

Raising public awareness on climate change appears to have received little attention in the private sector, although air pollution is being addressed by way of company support for events such as the commuter challenge and Clean Air Day. A dearth of PAI reports suggest that this sector could be doing much more. This is in line with findings from the main survey section which concluded that private sector companies see themselves as behind-the-scenes players, preferring to act

as advisors, funders, or partners in the development of PAIs. Raising public awareness may not be a priority for private sector respondents, however, companies could be approached to motivate their very highly developed network of influential decision makers. Energy companies in particular might be an excellent place to start as they may see their role as giving back to the community.

Private sector partners might also offer the opportunity to promote the idea of climate change in the workplace. Existing initiatives could be developed to include a clear health message. Occupational health nurses could play a key role in the launching of such initiatives.

4.5 Next steps

CPHA and its partners endeavored to determine the scope of existing PAIs that linked the health effects of climate change and air pollution. The survey process and the collection of public awareness initiative information has provided a sound basis for determining what is already being done and what remains to be done to inform children and adults about the issue. CPHA has determined that although many initiatives currently exist, few actually make the direct link to health. There is tremendous opportunity for future work in this area both in supporting and enriching current initiatives and in the development of new ones. It is clear that CPHA and its partners have a very critical and necessary role to play in raising the awareness of Canadians about the health effects of climate change and air pollution and are well informed to take the next steps to do so.

At a more specific level, the project has succeeded in creating the following:

- increased awareness of stakeholder organizations in the four sectors identified regarding the links between climate change, air pollution and health through the process of being surveyed as well as receiving the survey results;
- enhanced opportunities for communication, information-sharing, partnerships, consultation and collaboration between stakeholder groups, and between these groups and CPHA; and
- a strengthened network of stakeholder organizations to foster intersectoral partnerships working in the area of the health effects of climate change and air pollution.

With these factors in mind and based on the survey findings, CPHA has the opportunity to move forward with a proposed framework that engages involved sectors in providing information and resources on these issues, harnessing the expertise, credibility and the vast collective potential of these sectors as a means to reach the Canadian public. This approach would enable CPHA and partners to

shift from determining needs and building awareness and understanding to engaging and motivating target groups to take action on these issues.

There are several ways forward for CPHA and its partners at this time. A set of options should be developed which can be presented to the Advisory Committee for discussion. The survey findings and their analysis in this report have led to a number of ideas for future work. Given that the Advisory Committee members of the project have reconfirmed their continued interest and support for the project and offered ways in which their organizations could further assist with future steps, it would make sense to develop options to include their expertise and existing input. Part of this work would involve further research and information gathering on contacts made through the survey process.

Committee members have also presented ideas that require further consideration as part of CPHA's options. A pilot or model community project could be developed in partnership with the Federation of Canadian Municipalities since they currently have a municipal-level climate change project in place which could offer a good fit with CPHA's efforts to promote health as a key trigger for action on these issues. Feedback from The College of Family Physicians of Canada suggests that the education of future doctors is a critical step in conveying the health message to the broader population. The CNA is also committed to furthering the education of Canada's nurses on this issue.

Feedback received from the education sector indicates that there may be very concrete opportunities for raising awareness by working through schools to educate, implement solutions and recognize and reward successful initiatives. A network to communicate directly with schools could be developed, and CPHA could play a leadership role in partnering with other health sector stakeholders to develop on-site initiatives to engage school-age children directly through the public health and education sectors.

A core group of organizations could be selected according to specified criteria for future work. A powerful group of organizations with extensive existing networks and resources in place is an idea worth evaluating. Further contact with these organizations would be required. Specific criteria used to determine a 'key organization' might include some of the following:

- the capacity of the organization's network and partners on a national, regional, provincial and/or local level
- the capacity of the organization to distribute or make available PAIs based on such factors as human resources or funds

- the unique nature of a PAI (success stories and best practices)
- ongoing funding or financial resources
- understanding of and commitment to the climate change, air pollution and human health issue.

In moving forward, the most important priorities are to strengthen the role of health considerations in public awareness initiatives and to ensure that the scope of health issues and effects is consistent with accepted understandings of the health effects of climate change and air pollution. This will allow the health sector to become engaged in motivating target groups to take action on these issues, using the health effects of climate change and air pollution as key triggers.

In addressing these priorities, we see three key areas for future work arising from the gaps in tools and resources identified in the survey:

1. Prepare an inventory of quality information relevant to these issues.
2. Use the survey results as the basis for developing an accessible repository of success stories and intervention strategies related to health - a network of networks approach.
3. Use the strengths of the public health sector in terms of developing intervention strategies at local levels focussing on the health effects of climate change and air pollution.

In addition to these points, the provincial and territorial branch associations (PTBA's) should be rallied to see how the health sector (health promotion) at a provincial level could be deployed. Project partners might also want to consider any policy development opportunities.

Based on these findings, we propose a framework that engages the health sector in providing information and resources on these issues, harnessing the expertise, credibility and the vast potential this sector has to reach the Canadian public. In partnership with key stakeholders in other sectors, this approach will enable CPHA to shift from determining needs and building awareness and understanding among key partners, to engaging the health sector and partners in motivating target groups to take action on these issues.

Appendix A List of Advisory Committee Members

Mr. Fred Ruf
Canadian Public Health Association

Ms. Beatrice Olivastri
Friends of the Earth

Mr. Mike Kelly
TransAlta Corporation

Dr. Nicole Bruinsma
College of Family Physicians of Canada

Dr. Cindy Hunt
Canadian Nurses Association

Ms. Kathy LeGrow
Canadian School Boards Association

Appendix B List of Organizations Agreeing to Participate

| | |
|--|---|
| Aboriginal Nurses Association of Canada | Canadian Electricity Association |
| Agricultural Groups Concerned About Resources & The Environment | Canadian Environment Industry Association |
| Alberta Medical Association | Canadian Environmental Law Association |
| Alberta Public Health Association | Canadian Environmental Network |
| Alberta School Boards Association | Canadian Federation of University Women |
| Alliance of Manufactures & Exporters Canada | Canadian Fertilizer Institute |
| Association pour la santé publique du Québec | Canadian Home and School Federation |
| Asthma Society of Canada | Canadian Institute of Child Health |
| Atco Electric Ltd. | Canadian Institute of Public Health Inspectors |
| Atlantic Coastal Action Program, Cape Breton | Canadian Labour Congress |
| Ballard Power Systems | Canadian Lung Association - National Office |
| British Columbia Medical Association | Canadian Medical Association |
| British Columbia Ministry of Health | Canadian Network for Asthma Care |
| British Columbia Pediatric Society | Canadian Nurse Educators Association |
| Canada Trust Friends of the Earth Foundation | Canadian Nurses Association |
| Canadian Alliance of Student Associations | Canadian Occupational Health Nurses Association |
| Canadian Assoc. of University Schools of Nursing | Canadian Pacific Railway |
| Canadian Association of Occupational Therapists | Canadian Petroleum Products Institute |
| Canadian Association of Optometrists | Canadian Pharmacists Association |
| Canadian Association of Petroleum Producers | Canadian Pulp and Paper Association |
| Canadian Association of Physicians for the Environment | Canadian School Boards' Association |
| Canadian Association of Principals | Canadian Society of Respiratory Therapists |
| Canadian Association of School Administrators | Canadian Teachers Federation |
| Canadian Cancer Society | Canadian University Services Overseas |
| Canadian Center for Pollution Prevention | Canadian Vehicle Manufacturers' Association |
| Canadian Child Care Federation | Canadian Wind Energy Association |
| Canadian Council for Human Resources in the Environment Industry | Canadians for a Clean Environment |
| Canadian Dermatology Association | Cancer Care Ontario |
| Canadian Education Association | Cantox Environmental Inc. |
| | Capital Health Authority |
| | Catholic Health Association of Canada |
| | Centre for Innovation in Corporate Responsibility |
| | Centre for Sustainable Transportation |

| | |
|--|--|
| City of Winnipeg | Government of Nunavut |
| Clean Air Strategic Alliance | Government of Ontario |
| Clean Annapolis River Project | Government of Prince Edward Island |
| Clean Nova Scotia Foundation | Government of Prince Edward Island |
| College of Family Physicians of Canada | Government of the Northwest Territories |
| Commission de la coopération environnementale (ALENA) | Government of the Northwest Territories |
| Conservation Corps of Newfoundland & Labrador | Government of the Northwest Territories |
| Consumers' Association of Canada | Government of the Yukon |
| Council of Canadians | Government of Yukon |
| Council of Ministers of Education, Canada | Greenpeace Canada |
| David Suzuki Foundation | Halifax Regional Municipality |
| Delphi | Halifax Regional Municipality |
| Domtar Inc. | Heart and Stroke Foundation of Canada |
| Duke Solutions | Idylwyld Health Centre - Saskatoon District Health |
| E.A.R.T.H Systems | Insurance Bureau of Canada |
| Earth Day Canada | International Institute for Sustainable Development |
| Enbridge Consumer's Gas | Inuvik Regional Health Board |
| EPCOR | Kids First Parent Association of Canada |
| Family Physician Asthma Group of Canada | Laidlaw Inc. |
| Federation of Canadian Municipalities | Lambton Health Unit |
| FEESA - An Environmental Education Society | Learning for a Sustainable Future |
| Fondation Québécoise en Environnement | Manitoba Association of School Trustees |
| Fort Whyte Centre | Manitoba Public Health Association |
| Friends of the Earth | McMaster Institute of Environment and Health |
| Glaxo Wellcome Inc. | Medical Society of Nova Scotia |
| Global Change Game | Medical Society of Prince Edward Island |
| Go for Green | Ministère de la santé et des services sociaux |
| Gouvernement du Québec | National Round Table on the Environment and the Economy |
| Government of Alberta | Natural Resources and Energy - New Brunswick |
| Government of Alberta | Natural Resources Canada |
| Government of British Columbia | NB/PEI Branch - CPHA |
| Government of Canada | New Brunswick Department of Education |
| Government of Canada | Newfoundland & Labrador School Boards' Association |
| Government of Canada | Newfoundland and Labrador Medical Association |
| Government of Manitoba | Newfoundland and Labrador Public Health Association |
| Government of Newfoundland and Labrador | |
| Government of Nova Scotia | |
| Government of Nova Scotia | |
| Government of Nova Scotia | |

| | |
|--|---|
| Northwest Territories Medical Association | Régie régionale de Montréal-Centre |
| Nova Scotia Department of Natural Resources | Resource Efficient Agricultural Production Canada |
| OntAirio | Rose Technology Group Ltd. |
| Ontario Government | Royal Bank of Canada |
| Ontario Hydro | Saskatchewan Energy and Mines |
| Ontario Medical Association | Saskatchewan Public Health Association |
| Ontario Public Health Association | Saskatchewan School Trustees Association |
| Ontario Public School Boards Association | SHE Consultants |
| PEI School Trustees Association | Shell Canada Limited |
| Pembina Institute for Appropriate Development | Sierra Club of Canada |
| Pollution Probe | Society Environment & Energy Development Studies Foundation (SEEDS) |
| Prairies Acid Rain Coalition | Stanton Regional Health Board |
| Province of British Columbia | STOP |
| Province of British Columbia | Suncor Energy |
| Province of Manitoba | Telus |
| Province of New Brunswick | Toronto Environmental Alliance |
| Province of New Brunswick | Toronto Public Health |
| Province of New Brunswick | Toronto-Sunnybrook Regional Cancer Centre |
| Province of Newfoundland | TransAlta Corporation |
| Province of Ontario | TransAlta Corporation |
| Province of Prince Edward Island | TRAX Project |
| Province of Saskatchewan | Vancouver Cancer Centre |
| Province of Saskatchewan | Vancouver Health Dept. |
| Province of Saskatchewan | Viridis Environmental Inc. |
| Public Health Association of British Columbia | Vision Quest Windelectric Inc. |
| Public Health Association of Nova Scotia | Western Newfoundland Regional Community Health Board |
| Public Health Office - Health and Community Services | York Centre of Applied Sustainability |
| Public Health Services - NS Central Region | Yukon Conservation Society |

Appendix C List of Organizations Interviewed

| | |
|--|---|
| Aboriginal Nurses Association of Canada | Canadian Environmental Law Association |
| Agricultural Groups Concerned About Resources & The Environment | Canadian Environmental Network |
| Alberta Medical Association | Canadian Federation of University Women |
| Alberta Public Health Association | Canadian Fertilizer Institute |
| Alberta School Boards Association | Canadian Home and School Federation |
| Alliance of Manufactures & Exporters Canada | Canadian Institute of Child Health |
| Association pour la santé publique du Québec | Canadian Institute of Public Health Inspectors |
| Asthma Society of Canada | Canadian Labour Congress |
| Atco Electric Ltd. | Canadian Lung Association - National Office |
| Atlantic Coastal Action Program, Cape Breton | Canadian Medical Association |
| Ballard Power Systems | Canadian Network for Asthma Care |
| British Columbia Medical Association | Canadian Nurse Educators Association |
| British Columbia Ministry of Health | Canadian Nurses Association |
| Canada Trust Friends of the Earth Foundation | Canadian Occupational Health Nurses Association |
| Canadian Alliance of Student Associations | Canadian Petroleum Products Institute |
| Canadian Assoc. of University Schools of Nursing | Canadian Pharmacists Association |
| Canadian Association of Occupational Therapists | Canadian Pulp and Paper Association |
| Canadian Association of Optometrists | Canadian School Boards' Association |
| Canadian Association of Petroleum Producers | Canadian Society of Respiratory Therapists |
| Canadian Association of Physicians for the Environment | Canadian University Services Overseas |
| Canadian Association of Principals | Canadian Vehicle Manufacturers' Association |
| Canadian Association of School Administrators | Canadian Wind Energy Association |
| Canadian Cancer Society | Canadians for a Clean Environment |
| Canadian Center for Pollution Prevention | Cancer Care Ontario |
| Canadian Child Care Federation | Cantox Environmental Inc. |
| Canadian Council for Human Resources in the Environment Industry | Capital Health Authority |
| Canadian Dermatology Association | Catholic Health Association of Canada |
| Canadian Education Association | Centre for Innovation in Corporate Responsibility |
| Canadian Electricity Association | Centre for Sustainable Transportation |
| Canadian Environment Industry Association | City of Winnipeg |
| | Clean Air Strategic Alliance |
| | Clean Annapolis River Project |
| | Commission de la coopération environnementale (ALENA) |
| | Conservation Corps of Newfoundland & Labrador |

| | |
|--|--|
| Consumers' Association of Canada | Learning for a Sustainable Future |
| Council of Canadians | Manitoba Public Health Association |
| Council of Ministers of Education, Canada | McMaster Institute of Environment and Health |
| Delphi | Medical Society of Nova Scotia |
| Duke Solutions | Medical Society of Prince Edward Island |
| E.A.R.T.H Systems | Ministère de la santé et des services sociaux |
| Earth Day Canada | National Round Table on the Environment and the Economy |
| Enbridge Consumer's Gas | Natural Resources and Energy - New Brunswick |
| EPCOR | Natural Resources Canada |
| Family Physician Asthma Group of Canada | NB/PEI Branch - CPHA |
| Federation of Canadian Municipalities | New Brunswick Department of Education |
| FEESA - An Environmental Education Society | Newfoundland & Labrador School Boards' Association |
| Fondation Québécoise en Environment | Newfoundland and Labrador Medical Association |
| Fort Whyte Centre | Newfoundland and Labrador Public Health Association |
| Friends of the Earth | Northwest Territories Medical Association |
| Glaxo Wellcome Inc. | Nova Scotia Department of Natural Resources |
| Global Change Game | OntAiro |
| Go for Green | Ontario Government |
| Gouvernement du Québec | Ontario Hydro |
| Government of Alberta | Ontario Medical Association |
| Government of British Columbia | Ontario Public Health Association |
| Government of Canada | Ontario Public School Boards Association |
| Government of Manitoba | PEI School Trustees Association |
| Government of Newfoundland and Labrador | Pembina Institute for Appropriate Development |
| Government of Nova Scotia | Pollution Probe |
| Government of Nunavut | Prairies Acid Rain Coalition |
| Government of Ontario | Public Health Association of British Columbia |
| Government of Prince Edward Island | Public Health Association of Nova Scotia |
| Government of the Northwest Territories | Public Health Office - Health and Community Services |
| Government of the Yukon | Public Health Services - NS Central Region |
| Greenpeace Canada | Régie régionale de Montréal-Centre |
| Halifax Regional Municipality | Resource Efficient Agricultural Production Canada |
| Heart and Stroke Foundation of Canada | |
| Idylwyld Health Centre - Saskatoon District Health | |
| Insurance Bureau of Canada | |
| International Institute for Sustainable Development | |
| Inuvik Regional Health Board | |
| Kids First Parent Association of Canada | |
| Laidlaw Inc. | |
| Lambton Health Unit | |

Rose Technology Group Ltd.
Saskatchewan Energy and Mines
Saskatchewan Public Health Association
Saskatchewan School Trustees
Association
SHE Consultants
Shell Canada Limited
Sierra Club of Canada
Society Environment & Energy
Development Studies Foundation
(SEEDS)
Stanton Regional Health Board
STOP
Suncor Energy
Telus
The Clean Nova Scotia Foundation
The College of Family Physicians of
Canada
The David Suzuki Foundation
The Manitoba Association of School
Trustees
The Royal Bank of Canada
Toronto Environmental Alliance
Toronto Public Health
Toronto-Sunnybrook Regional Cancer
Centre
TransAlta Corporation
TransAlta Corporation
TRAX Project
Vancouver Cancer Centre
Vancouver Health Dept.
Viridis Environmental Inc.
Vision Quest Windelectric Inc.
Western Newfoundland Regional
Community Health Board
York Centre of Applied Sustainability
Yukon Conservation Society

Appendix D Survey Instrument

| F O R C P H A O F F I C E U S E O N L Y | |
|---|--------------------|
| Sector & Organization/Ministry Code: | Interviewer Notes: |
| Name of Organization/Ministry: | |
| Date/Time of Interview: | |
| Interviewer: | |

Interview Questions

Introduction

1. Has your organization/ministry undertaken any work on the following environmental issues?

Please check all that apply.

- Climate change
- Air pollution
- Waste management/Recycling
- Energy conservation
- Other *[please specify]* _____
- Does not undertake any work on environmental issues

*** Note:** If your organization/ministry does not undertake any work on environmental issues, the only questions you should answer are those marked with an asterisk (*), namely questions 3, 7, 8, 10-12, 16, 17, 19-28.

2. What kind of work does your organization/ministry do on environmental issues?

Please check all that apply.

- Policy development
- Research
- Evaluation
- Advocacy
- Education and awareness
- Skills building or training
- Other *[please specify]* _____
- Don't know

The Health Effects of Climate Change

- * 3. a) Does your organization/ministry regard the health effects of climate change as a problem?
- Yes
 - No
 - Don't know
- b) If Yes,
- i) how does your organization/ministry describe this problem?

 - ii) how serious a problem does your organization/ministry believe this is?
 Not Serious Moderately Serious Very Serious
4. Has your organization/ministry issued a specific, official policy or position statement on the health effects of climate change?
- Yes *[please provide details]* _____

 - No
 - Don't know
5. Does your organization/ministry currently have a budget for public awareness initiatives on the health effects of climate change?
- Yes *[please provide details]* _____

 - No
 - Don't know
6. Has your organization/ministry directly undertaken any public awareness initiatives to address the health effects of climate change?
- Yes *[please complete the Public Awareness Initiative Information Form attached to this questionnaire]*
 - No
 - Don't know

* 7. a) Are you aware of any other organizations/ministries, that are undertaking public awareness initiatives on the health effects of climate change?

- Yes
- No
- Don't know

b) If Yes, please list those initiatives

* 8. a) Has your organization/ministry contributed to the work of other organizations/ministries that are undertaking public awareness initiatives on the health effects of climate change?

- Yes
- No
- Don't know

b) If Yes, how? *Please check all that apply.*

- Financial contribution
- In-kind contribution
- Other *[please specify]* _____

Current State of Your Organization's/Ministry's Public Awareness Work on Climate Change

9. If your organization/ministry has successfully implemented public awareness initiatives on the health effects of climate change, what were the most important factors that contributed to that success? *Please check all that apply.*

- | | | |
|---|---|--|
| <input type="checkbox"/> Research & knowledge | <input type="checkbox"/> Leadership | <input type="checkbox"/> Public interest |
| <input type="checkbox"/> Funding | <input type="checkbox"/> Time | <input type="checkbox"/> Human resources |
| <input type="checkbox"/> Partnerships | <input type="checkbox"/> Other _____ | |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Not applicable | |

* 10. What are the most important elements that would be needed to improve your organization's/ ministry's work on the health effects of climate change? *[please check all that apply]*

- | | | |
|---|--------------------------------------|--|
| <input type="checkbox"/> Research & knowledge | <input type="checkbox"/> Leadership | <input type="checkbox"/> Public interest |
| <input type="checkbox"/> Funding | <input type="checkbox"/> Time | <input type="checkbox"/> Human resources |
| <input type="checkbox"/> Partnerships | <input type="checkbox"/> Other _____ | |
| <input type="checkbox"/> Don't know | | |

* 11. In summary, how would you rate your organization's/ministry's current capacity to advance public awareness of the health effects related to climate change?

- No Capacity
 Some Capacity
 Broad Capacity

The Health Effects of Air Pollution

[Note: for the purposes of this survey, air pollution refers only to outdoor air pollution]

- * 12. a) Does your organization/ministry regard the health effects of air pollution as a problem?
- Yes
 - No
 - Don't know

b) If Yes,

i) how does your organization/ministry describe this problem?

ii) how serious a problem does your organization/ministry believe this is?

- Not Serious Moderately Serious Very Serious

13. Has your organization/ministry issued a specific, official policy or position statement on the health effects of air pollution?

- Yes *[please provide details]* _____
- No
- Don't know

14. Does your organization/ministry currently have a budget for public awareness initiatives on the health effects of air pollution?

- Yes *[please provide details]* _____
- No
- Don't know

15. Has your organization/ministry directly undertaken any public awareness initiatives on the health effects of air pollution?

- Yes *[please complete the Public Awareness Initiative Information Form attached to this questionnaire]*
- No
- Don't know

* 16. a) Are you aware of any other organizations/ministries that are undertaking public awareness initiatives on the health effects of air pollution?

- Yes
- No
- Don't know

b) If Yes, please list those initiatives

- * 17. a) Has your organization/ministry contributed to the work of other organizations/ministries which are undertaking public awareness initiatives on the health effects of air pollution?
- Yes
 No
 Don't know
- b) If Yes, how? *Please check all that apply*
- Financial contribution In-kind contribution
 Other *[please specify]* _____

Current State of Your Organization's/Ministry's Public Awareness Work on Air Pollution

18. If your organization/ministry has successfully implemented public awareness initiatives on the health effects of air pollution, what were the most important factors that contributed to that success? *Please check all that apply.*
- Research & knowledge Leadership Public interest
 Funding Time Human resources
 Partnerships Other _____
 Don't know Not applicable
- * 19. What are the most important elements that would be needed to improve your organization's/ministry's work on the health effects of air pollution? *Please check all that apply.*
- Research & knowledge Leadership Public interest
 Funding Time Human resources
 Partnerships Other _____
 Don't know
- * 20. In summary, how would you rate your organization's/ministry's current capacity to advance public awareness of the health effects of air pollution?
- No Capacity Some Capacity Broad Capacity

The National Climate Change Implementation Strategy

Please refer to the Glossary of Terms for descriptions of the National Climate Change Implementation Strategy (NCCIS) and the Canadian Public Health Association National Strategy.

- * 21. Prior to receiving this survey, were you aware that a National Climate Change Implementation Strategy (NCCIS) is being developed in Canada?
 - Yes
 - No
 - Don't know

- * 22. Has your organization/ministry been involved in the national process to develop the NCCIS?
 - Yes *[please specify how]* _____
 - No
 - Don't know

- * 23. Does your organization/ministry believe that the NCCIS should include public awareness and education on the health effects of climate change and air pollution?
 - Yes
 - No
 - Don't know

- * 24. Would your organization/ministry be interested in participating in the NCCIS Consultation that will likely be conducted in 2000?
 - Yes
 - No
 - Don't know

The Canadian Public Health Association National Strategy

Please refer to the Glossary of Terms for descriptions of the National Climate Change Implementation Strategy (NCCIS) and the Canadian Public Health Association National Strategy.

- * 25. Based on the results of this survey, CPHA will develop a National Strategy. From your organization's perspective, what are the most critical components of a national strategy that will be used to further public awareness of the health effects of climate change and air pollution?

About Your Sector's Role in Public Awareness on the Health Effects of Climate Change and Air Pollution

- * 26. How can your sector most effectively participate in public awareness initiatives on the health effects of climate change and air pollution?

- * 27. a) Are you aware of any opportunities within the next year for developing public awareness initiatives on these issues within your sector?

- Yes
 No

- b) If Yes, please provide details (conferences, workshops, campaigns, curriculum development, etc.)

- * 28. Do you have any other comments or concerns regarding this survey?

| FOR CPHA OFFICE USE | |
|----------------------------|--|
| Sector & Organization Code | |
| Organization Name | |
| Contact Person | |

Public Awareness Initiative Information Form

Canadian Public Health Association (CPHA)
*Supporting Public Awareness Initiatives on the
Health Effects of Climate Change and Air Pollution*

Please complete this form and fax it to Caryn Wolfe, Project Coordinator, at 613-725-9826.

Please fill out one form for each initiative.

1. Title of your public awareness initiative:

2. Brief description of your public awareness initiative:

Please describe the activity or range of activities that you are undertaking.

3. Target audience(s): *Please check all that apply.*

- General population Adults 20+ Youth (15-19)
 School age children (5-14) Pre-school children (0-4)
 Other _____

4. Do you have any partners in the public awareness initiative?

- Yes
- No

If Yes, please list them:

5. Have you produced any public awareness initiative resources?

- Yes
- No

If Yes, please describe those resources:

6. a) Are your resources available for distribution?

- Yes
- No

If Yes, how are they distributed?

b) Is there a charge for resources?

- Yes *[please provide costs]* _____
- No

7. Has your public awareness initiative been evaluated?

- Yes
- No

*Thank you for providing this information.
Please fax this completed form to Caryn Wolfe, Project Coordinator at 613-725-9826*

Appendix E List of Public Awareness Initiatives by Sector

Education – Public Awareness Initiatives

National and Provincial / Regional Organizations

Organization Name

- Manitoba Education and Training

PAI Title & Description

- Departmental Sustainable Development Strategy
- 3 year plan
- How policies and guidelines conform to sustainable development policies

Target Audience

- Department staff

Resource / Promo Material

- Action plans
- Recyclable cup initiative
- One to one basis by invitation

Organization Name

- Saskatchewan School Trustees Association

PAI Title & Description

- Air Quality and Quality of Health

Target Audience

- School age children

Resource / Promo Material

- Research funding, data collection, verification, test public segments distribute

Organization Name

- SEEDS Foundation

PAI Title & Description

- National Climate Change Program

Target Audience

- Teachers, students

Resource / Promo Material

- Process of developing resources available September 2000. Workshops, conferences and mail out.

Organization Name

- Learning for a Sustainable Future

PAI Title & Description

- Education Strategy on Climate Change
- Bilingual series of inquiries on climate change and sustainability

Target Audience

- Teachers, students

Resource / Promo Material

- Delivery of workshops for teachers (K-12) activities for students
- Posting of inquiries and activities on LSF web site
- Teacher's Guide

Organization Name

- Clean Anapolis River Project

PAI Title & Description

- Public Awareness, communication and community involvement as it relates to issues of climate change

Target Audience

- Broad audience includes homeowners and farmers

Resource / Promo Material

- Home energy audit, customized brochures, posters
- Retail outlets, summer camps, fairs, schools, press releases -no charge

Organization Name

- Fort Wythe Centre

PAI Title & Description

- Climate Change Education Program

Target Audience

- School age children, High school / university / college students, general public

Resource / Promo Material

- Guided programs, climate change field station, exhibits and signage indoors and out

Environment Sector – Public Awareness Initiatives

National Organizations

Organization Name

- Earth Day Canada

PAI Title & Description

- Climate change initiative
- uses existing communications networks and vehicles to educate about the causes and impacts of climate change and individual actions that can mitigate these.

Target Audience

- Canadians

Resources

- “In-kind” advertising and promotion services
- National “solutions” newsletters and “EcoKids club project packs”
- National posters, EcoKids on-line and earth day on-line websites, Earth Day media conference, public transit information campaign, print and television PSA.

Organization Name

- National Round Table on the Environment and the Economy

PAI Title & Description

- National Forum on Climate Change

Target Audience

- General population

Resources

- Resources available for a fee.

Organization Name

- Greenpeace Canada

PAI Title & Description

- Solar Pioneers Project
- photovoltaic buyers club. This PAI aims to raise public awareness on issues related to climate change and air pollution including health effects.

Target Audience

- Public events and dissemination of information to members and other organizations rounds out the promotion of this initiative

Resources

- Mail out leaflets are distributed free of charge.

Organization Name

- Pembina Institute

PAI Title & Description

- “Climate Protection Solutions” website success stories “Eco savings of behaviour changes”. Interactive tools can be found on-line as well as hundreds of resources

Target Audience

- Individuals and families. (private sector and industry will follow)

Organization Name

- Canadian Environmental Law Association (CELA)

PAI Title & Description

- Toxics and Health Program
- improve federal and provincial regulations to protect health and environment from toxic substances.

Target Audience

- Policy people, political decision-makers, labour and environmental interests as well as the general public

Resources

- “Everyday Carcinogram” which is available for purchase.

Organization Name

- Friends of the Earth

PAI Title & Description

- Clean Air Campaign can be found on the FOE website and offers users a range of clean air actions.

Organization Name

- International Institute for Sustainable Development

PAI Title & Description

- Youth strategy for public outreach on climate change (draft).

Target Audience

- Youth 15-19

Resources

- 4 streams of activities: education; information and awareness campaigns; capacity building, and; community actions

Organization Name

- Sierra Club

PAI Title & Description

- Climate Change Campaign and Climate Change Action Network

Target Audience

- General population

Resources

- public service announcement.

Organization Name

- Pollution Probe

PAI Title & Description

- Clean Air Campaign and Commute

Target Audience

- Workplace

Resources

- Kits, posters and brochures distributed at participating workplaces.

Organization Name

- The David Suzuki Foundation

PAI Title & Description

- Health and Climate Change Program which seeks to strengthen the links between climate change, air pollution and human health.

Target Audience

- General population and health care communities

Resources

- "Taking Our Breath Away" series of printed materials and six other climate change reports
- website
- Distribution is by website or mail. Costs depend on user.

Environment Sector – Public Awareness Initiatives

Provincial / Regional Organizations

Organization Name

- Commission de la coopération environnementale

PAI Title & Description

- Continental Pollutant Pathways Report (1997)
- reports on an agenda to promote cooperation in addressing long range pollution concerns

Target Audience

- Policy people and concerned citizens

Resource / Promo Material

- Information can be obtained at the commission's internet site. Hardcopies are also available

PAI Title & Description

- Sound Management of Chemicals Program
- framework of agreement North American Regional Action Plans.

Target Audience

- General population, stakeholders, government, industry policy makers.

Resource / Promo Material

- Web site and hard copies of resources are available in 3 languages.

Organization Name

- Fondation Quebecoise en Environnement

PAI Title & Description

- Multi-media tour on climate change

Target Audience

- 18-25 (University/CEGEP), general population, and adults 20 and over

Resource / Promo Material

- Video cd with double screen film and presentation combination on climate change. Sector based information to navigate multi-media cd. Animators and brochures focussed on actions.

Organization Name

- Province of Saskatchewan

PAI Title & Description

- Interdepartmental Committee on Public Education and Outreach and the Saskatchewan Stakeholder Advisory Committee (SERM Climate Change Network). These committees coordinate the provincial government's climate change communications and awareness initiatives

Target Audience

- Stakeholders, NGO's and government

Resource / Promo Material

- Website and meetings with stakeholders
- Direct mail, newsletter articles, inter and intranet

Organization Name

- Government of Prince Edward Island

PAI Title & Description

- Car Emission annual clinics (5-6 locations on island)

Target Audience

- Youth and adults 20 and over.

Resource / Promo Material

- Advance advertising
- Educators share information with drivers while their cars are being checked

Organization Name

- Government of Nova Scotia

PAI Title & Description

- "The State of the Nova Scotia Environment" (1998)
- reports on all aspects of Nova Scotia's environment

Resource / Promo Material

- Available through departmental offices and schools and can also be downloaded from the government website.

Organization Name

- New Brunswick Department of Environment

PAI Title & Description

- "New Brunswick Small Organization Forecast - Air Quality Prediction Program

Resource / Promo Material

- Twice daily through various media
- Phone recordings and the internet
- Fact sheets and internet pages are available through the internet, by mail or at regional offices.

Organization Name

- Yukon Government

PAI Title & Description

- Climate Change initiative
- Plans for establishment of a Yukon green house gas emissions inventory climate centre at Yukon College

Resource / Promo Material

- Five fact sheets
- School presentations

PAI Title & Description

- Education campaign
- Pollution caused by idling vehicles and wood burning

Target Audience

- General population

Resource / Promo Material

- Available at government outlets in the Yukon, by mail, schools and newspaper.

Organization Name

- Yukon Conservation Society

PAI Title & Description

- Energy Efficient House Calls Project
- Basic understanding of climate change
- Energy efficient initiatives for homeowners.

Target Audience

- General population, youth and adults.

Resource / Promo Material

- Demonstrations
- School presentations

Organization Name

- The Clean Nova Scotia Foundation

PAI Title & Description

- Home Tune Up
- Environmental assessments in 2000 homes in the Halifax Regional Municipality.

Target Audience

- Homeowners

Resource / Promo Material

- Recommendation kit
- Information on climate change and the connections between it and daily routines in the home
- Previously produced 'insert' is available on climate change

PAI Title & Description

- Planet Action Club for Kids (P.A.C.K) children's newsletter three times during the school year.

Target Audience

- Elementary grades and teachers.

Resource / Promo Material

- Teacher's Guide
- Newsletter
- Promoted and available at public events or delivered directly to those that sign up free of charge

PAI Title & Description

- Travelling Environmental Show
- The Science of Climate Change, Climate Change in Nova Scotia, Climate Change and Your Home and Climate Change and Transportation.

Target Audience

- General public

Resource / Promo Material

- Presentation of a climate change video series
- Available upon request for a fee. (\$9.95/video or \$33 for set of 4)

PAI Title & Description

- Climate Change 2000 consists of public workshops

Resource / Promo Material

- Public discussion
- Climate change brochure
- Free of charge via mail outs, public display and events

Organization Name

- The Ontario Campaign

PAI Title & Description

- brochure on clean air
- 'Clean Air Forum' 'Clean Air Pledge'
- Vote for Clean Air Candidates'

Target Audience

- Political leaders, general public

Resource / Promo Material

- Distribution of this resource at events and at: www.ontario.org

Organization Name

- Atlantic Coastal Action Program

PAI Title & Description

- Our Dynamic Climate' and 'Ground Level Ozone Monitoring' Climate Change Challenge'

Target Audience

- Elementary aged children

Resource / Promo Material

- Game available for \$50 (board) or \$250 (floor model).

Health Sector – Public Awareness Initiatives

National Organizations

Organization Name

- The Canadian Cancer Society

PAI Title & Description

- Sun Sense - dangers to health of overexposure to sun and ozone depletion

Target Audience

- General pop., teachers and other caregivers.

Resource / Promo Material

- Brochures, posters, bookmarks, PSA's, curriculum material, videos. Available for a fee.

Organization Name

- The Heart and Stroke Foundation,

PAI Title & Description

- “Smoke Free Spaces” harmful cardiovascular health effects caused by both first and second hand smoke.

Target Audience

- School age children, youth and adults

Resource / Promo Material

- Available for a fee.

Organization Name

- The Canadian Dermatology Association

PAI Title & Description

- “Skin Awareness Campaign” curriculum development in Ontario + video

Target Audience

- General public, outdoor worker, children ages 2-6.

Resource / Promo Material

- Videos, brochure, manuals

PAI Title & Description

- “Sun Facts”

Target Audience

- General public, outdoor worker, children ages 2-6.

Resource / Promo Material

- Videos, brochure, manuals

Organization Name

- Canadian Association for Physicians for the Environment

PAI Title & Description

- “Clean Air”

Resource / Promo Material

- Brochure. No longer avail

Organization Name

- The Catholic Health Association of Canada

PAI Title & Description

- “Recovering our Place in Nature”.

Target Audience

- Adults over 20

Resource / Promo Material

- Convention

PAI Title & Description

- CHAC Monitor published three times per year reports on Ecological or environmental issues -

Target Audience

- General population

Resource / Promo Material

- Newsletter editions are available at no charge.

Organization Name

- The Canadian Institute for Child Health

PAI Title & Description

- “Changing Habits, Changing Climate: A Program About Children, Families and Climate Change”.

Target Audience

- General population parents, caregivers health professionals both rural and urban settings.

Resource / Promo Material

- Report

Health Sector – Public Awareness Initiatives

Provincial Organizations

Organization Name

- Medical Society of Prince Edward Island

PAI Title & Description

- “Health Tips”; quarterly publication sent to physician’s for patient distribution in their waiting rooms.

Target Audience

- General population

Resource / Promo Material

- Related materials such as posters, pamphlets and public service announcements. monthly newsletter and via radio

Organization Name

- Saskatchewan Health

PAI Title & Description

- The Crop Residue Burning Pilot Project

Target Audience

- General population

Resource / Promo Material

- Brochures (mail drop), newsletter and media coverage.

Organization Name

- Province of New Brunswick

PAI Title & Description

- Public opinion survey on air quality and the effects of outdoor air pollution.

Target Audience

- General population

Resource / Promo Material

- 16 page bilingual booklet
- Free of charge to public offices, libraries and physician’s offices.

Organization Name

- British Columbia Ministry of Health

PAI Title & Description

- “Health Files” – publication of more than 100, one page, fact sheets public and environmental health and safety issues

Target Audience

- General population

Resource / Promo Material

- Internet site print materials

Organization Name

- Ministère de la santé et des services sociaux

PAI Title & Description

- ÉCOGESTE initiative to reduce greenhouse gas emissions (plus support for municipal level activities – see below under *Direction de la santé publique de Montréal*)

Target Audience

- Government and general population

Resource / Promo Material

- Inter-departmental program

Organization Name

- Government of Yukon

PAI Title & Description

- Waste management.

Target Audience

- General population

Resource / Promo Material

- Public consultation

Organization Name

- Government of Nova Scotia

PAI Title & Description

- Report on the State of the Environment reports on the physical environment of the province

Target Audience

- General population

Resource / Promo Material

- Document public libraries and government book stores.

Health Sector – Public Awareness Initiatives

Municipal Organizations

Organization Name

- Direction de la santé publique de Montréal

PAI Title & Description

- “Info Smog” alerts the public to smog levels

Target Audience

- People with asthma or other respiratory illnesses and the elderly.

Resource / Promo Material

- Press releases and media coverage disseminate the information to the general public.

PAI Title & Description

- “Un air d’avenir” - two year car inspection emissions control program.

Target Audience

- General public, specifically car and truck drivers

Resource / Promo Material

- Demonstration project, film media

PAI Title & Description

- Annual “Aire Pure” (Clean Air week) campaign. June air pollution and car free transportation

Target Audience

- General population

Resource / Promo Material

- Posters and ads in the subway and buses as well as through all media avenues; newspaper, radio.

Organization Name

- Toronto Public Health

PAI Title & Description

- “Smog Reduction” program – public outreach and awareness, corporate smog alert response plan and fighting smog beyond our borders.

Target Audience

- General population

Resource / Promo Material

- Fact sheets, posters, Trans-Stop Ads - free of charge.

Organization Name

- Vancouver, Richmond Health Board

PAI Title & Description

- Clean Air Day challenge – promote the use of alternate transportation other than motorized vehicles.

Target Audience

- General public

PAI Title & Description

- Environment Week promotes public awareness of environmental issues

Target Audience

- The general public and City Hall employees

Resource / Promo Material

- City web page and City of Vancouver newsletter promotes the events.

PAI Title & Description

- Monetary grants to non-profit organizations for new environmental initiatives.

Target Audience

- Available to the general public.

Resource / Promo Material

- Application forms are available on the city website available to the general public.

PAI Title & Description

- The Mayor's environmental awards recognize corporate and non-profit organizations or individuals for their work on environmental issues in the city of Vancouver.

Target Audience

- General public.

Resource / Promo Material

- Applications, newspaper ads and the city website promote this initiative.

PAI Title & Description

- Special office for the environment comprised of city department representatives works together to promote the reduction of green house gases. The objective is to provide leadership by setting an example for the citizens of Vancouver.

Target Audience

- City employees, particularly those in operations

Resource / Promo Material

- Brochures available at no charge.

PAI Title & Description

- The Greater Vancouver Regional District (GVRD) climate control and green house gases working group aims to promote local citizen and government awareness of GHG's.

Target Audience

- General public and politicians

Resource / Promo Material

- Materials have been produced but are not available for general distribution

Organization Name

- City of Winnipeg

PAI Title & Description

- Crop stubble burning

Target Audience

- General public

Resource / Promo Material

- Media responds to press releases.

Organization Name

- Moncton Public Health Office

PAI Title & Description

- Smog advisory program

Target Audience

- General public

Resource / Promo Material

- Media as it's primary source of promotion.

Health Sector — Public Awareness Initiatives

Proposed or Forthcoming PAI's

National

Organization Name

- The College of Family Physician's of Canada

PAI Title & Description

- Proposed two pamphlets on air pollution and pesticides.

Target Audience

- Family physicians and the general public.

Resource / Promo Material

- Pamphlets
- Distribution will be through member organizations.

Organization Name

- The Canadian Lung Association.

PAI Title & Description

- Proposed - "CAN Do for Climate Change" project – bilingual tool kits

Target Audience

- Homeowners, workers and health professionals

Resource / Promo Material

- Extensive distribution plans - provincial Lung Association offices, media, government offices, environmental networks. No charge.

Municipal

Organization Name

- The Lambton Health Unit

PAI Title & Description

- "Air Quality Awareness Project"
- An air quality awareness survey and the identification and development of specific resources

Target Audience

- Adults over 65, asthmatics, parents and health professionals

Resource / Promo Material

- List of FAQ's will be on-line this year.

Private Sector — Public Awareness Initiatives

Organization Name

- Suncor Energy Inc

PAI Title & Description

- Alberta Oil Sands Community Exposure & Health Effects Assessment Program. 3 year project winding up now
- Multi stakeholder public program that included air monitoring study, regional health study.

Target Audience

- General population

Resource / Promo Material

- Report due early 2000

Organization Name

- TransAlta Corporation

PAI Title & Description

- Community Awareness on Outdoor Air Pollution dust and particulates - areas of interest and common concerns

Target Audience

- General population adults

Resource / Promo Material

- Public Advisory Committee
- Open house and forums

Organization Name

- Telus

PAI Title & Description

- The Commuter Challenge Bike to Work Week

Target Audience

- Workplaces - employees

Resource / Promo Material

- Intranet bulletin

Organization Name

- Canadian Fertilizer Institute

PAI Title & Description

- Distributor and Farmer Safety Training for Anhydrous Ammonia

Target Audience

- Farmers and distributors of product

Resource / Promo Material

- Video and training manual

Organization Name

- Cantox Environmental Inc

PAI Title & Description

- Public Health Risk Assessment of the Irving Oil Refinery Upgrade

Target Audience

- Community stakeholders
- General audience

Resource / Promo Material

- Discussions and meetings
- Public drop-in sessions
- Newsletters distributed
- Telephone line, Website

Appendix F List of Key Organizations by Sector

Based on our findings, we have identified a number of key organizations that are actively engaged in or developing public awareness initiatives on the health effects of climate change and air pollution. These organizations are important, both in their experience and capacity to provide information on these issues and in terms of their exposure and familiarity among the respondents surveyed.

Generally speaking, organizations that can most effectively (with the least effort) maximize public education and awareness efforts based on their existing networks, financial and human resources have been identified as key organizations.

Specific criteria used to determine a 'key organization' are listed below:

- existence of a PAI that links climate change, air pollution and human health.
- PAI's that link human health to air pollution or climate change
- PAI's that link human health to other pollution/environmental issues.
- the capacity of the organization to distribute or make available PAI's based on such factors as human resources or funds.
- the capacity of the organization's network and partners on a national, regional, provincial and/or local level.
- the unique nature of a PAI (success stories and best practices)
- ongoing funding or financial resources
- understanding of and commitment to the climate change, air pollution and human health issue

Health Sector Organizations

The following section provides a list of organizations by sector and a summary of PAI's. The sectors are further divided into either national, provincial or municipal sections.

National

The Canadian Cancer Society has developed a program called, "Sun Sense" which addresses the dangers of over exposure to the sun made greater by the depletion of the ozone layer of targets a wide audience including teachers and other caregivers of children. The program has produced a variety of material including brochures, posters, bookmarks, print public service announcements (psa's), curriculum material and videos. The Society collaborated with Health Canada, Environment Canada and The Canadian Dermatology Association. Resources are distributed to local Cancer Society offices and through the Cancer Information Service (1-888-939-3333)

The Heart and Stroke Foundation has produced printed materials for their, “Smoke Free Spaces” program. The program focuses on the harmful cardiovascular health effects caused by both first and second hand smoke. The target audiences were school age children, youth and adults and the target locations were schools and public locations. Resources are available for a fee.

The Canadian Dermatology Association has created the, “Skin Awareness Campaign” which includes a “Sun Facts” brochure directed to the general public as well as videos concerning sun safety for children ages 2-6. A sun safety manual geared to the outdoor worker is also a part of the campaign material. In addition, the association is involved in curriculum development in Ontario through liaisons with the Ontario Sun Safety Working Group. Environment Canada and The Canadian Cancer Society have partnered with the association on this campaign. Materials can be ordered through a toll free number (800-267-3376)

Canadian Association for Physicians for the Environment in conjunction with the College of Family Physicians of Canada, Pollution Probe and the Lung Association produced and distributed via physician’s offices a “Clean Air” brochure. No longer available

The Catholic Health Association of Canada through it’s convention in April of this year will focus on a central theme: “Recovering our Place in Nature”. David Suzuki is a keynote speaker on environmental health issues. The conference will draw an adult population over 20 years of age and has been coordinated in partnership with the Salvation Army.

The Association also publishes the CHAH Monitor three times per year which reports on Ecological or environmental issues from time to time. Issues of these editions are available at no charge.

The Canadian Institute for Child Health has recently completed a report entitled, “Changing Habits, Changing Climate: A Program About Children, Families and Climate Change”. The report is directed toward the general population including parents, other caregivers and health professionals in both rural and urban settings. Partners for this project include: The David Suzuki Foundation, Hospital for Sick Children Foundation, Benoit and Associates, The Delphi Group and Go for Green.

The following national level initiatives were under development at the time of the survey.

The College of Family Physicians of Canada currently has proposed the development of two pamphlets on air pollution and pesticides which will target family physicians and the general public. Distribution will be through member organizations. Pollution Probe and the Canadian Institute of Child Health are partners in this endeavour.

The Canadian Lung Association also has under proposal a “CAN Do for Climate Change” project which if approved for funding will produce bilingual tool kits for homeowners, workers and health professionals. Distribution plans are extensive and would involve provincial Lung Association offices, the media, government offices as well as environmental networks. Resources will not have a fee.

Provincial

Medical Society of Prince Edward Island produces, “Health Tips”; a quarterly publication sent to physician’s for patient distribution in their waiting rooms. The society has produced related materials such as posters, pamphlets and public service announcements. Certain resources are available for distribution with the monthly newsletter and via radio.

Saskatchewan Health has partnered with Saskatchewan Agriculture and Food, Saskatchewan Environment and Resource Management, Regina Health District and the City of Regina to develop, “The Crop Residue Burning Pilot Project”. The project is being piloted in the Regina area and aims to reduce the health and safety impacts caused by the smoke from crop residue burning. The general population has been targeted, and the program promoted through brochures (mail drop), newsletter and media coverage.

Province of New Brunswick in partnership with Health Canada and Saint John, Fundy Air Resource Management Area Committee contracted a research company to conduct a public opinion survey on air quality and the effects of outdoor air pollution. A 16 page bilingual booklet was produced based on the results of the survey and distributed free of charge to public offices, libraries and physician’s offices.

British Columbia Ministry of Health created the “Health Files” program that involves the publication of more than 100, one page, fact sheets on a wide range of public and environmental health and safety issues. The “Health Files” internet site is regularly updated and quantities of the print materials are carefully regulated to avoid waste.

Ministere de la sante et des services sociaux (translation needed)

Government of Yukon (health check name) along with the Department of Renewable Resources and the City of Whitehorse conducted a public consultation on waste management.

Government of Nova Scotia (health) works with the Department of the Environment to produce annually, a “Report on the State of the Environment”. The document which reports on the physical environment of the province is available in public libraries and government book stores.

Municipal

Direction de la santé publique de Montreal in partnership with the Ministère de la santé, SCTUM, Environnement Canada, Environnement Quebec and STOP alerts the public to smog levels through it’s “Info Smog” program. This information is particularly targeted to people with asthma or other respiratory illnesses and the elderly. Press releases and media coverage disseminate the information to the general public.

- “Un air d’avenir” is a two year demonstration project that engages the following partners: **AQLPA(lead on project)?** United Auto Parts, Canadian Tire and Canadian Automobile Association. Voluntary clinics are open for car inspections to determine emissions control. The general public, specifically car and truck drivers, have been targeted. The goals of the project are to educate the public and to determine the feasibility of implementing the program nationally. A film is available, which explains the project. The media plays a role in promoting public participation.
- Annual “Aire Pure” (Clean Air week) campaign. This city wide event takes place near the beginning of June for one week. The event aims to raise the awareness of the general population around issues of air pollution and car free transportation. Partners include: Ministère de l’environnement du Quebec, Environnement Canada, Ministère du transport de Quebec, SCUM, Association pulmonaire du Quebec and Bombardier. The event is promoted by way of posters and ads in the subway and buses as well as through all media avenues; newspaper, radio.

Toronto Public Health through their, “Smog Reduction” program has three objectives: public outreach and awareness, corporate smog alert response plan, and fighting smog beyond our borders. The Healthy City Office is a partner in this project which is directed to the general population. Fact sheets, posters, Trans-Stop Ads are available for distribution free of charge.

Vancouver, Richmond Health Board completed 5 Public Awareness Initiative forms on the following:

- Clean Air Day challenge was designed to promote the use of alternate transportation other than motorized vehicles.
- Environment Week promotes public awareness of environmental issues. The general public and City Hall employees are targeted. A city web page and City of Vancouver newsletter promotes the events.
- City of Vancouver is providing monetary grants to non-profit organizations for new environmental initiatives. Application forms are available on the city website and available to the general public.
- The Mayor's environmental awards recognize corporate and non-profit organizations or individuals for their work on environmental issues in the city of Vancouver. Applications, newspaper ads and the city website promote this initiative to the general public.
- A special office for the environment comprised of city department representatives works together to promote the reduction of green house gases. The objective is to provide leadership by setting an example for the citizens of Vancouver. City employees, particularly those in operations are the target group. Brochures are available which are also suited for the general public at no charge.
- The Greater Vancouver Regional District (GVRD) climate control and green house gases working group aims to promote local citizen and government awareness of GHG's. the general public and politicians are the target audience for this working group. Bound materials have been produced but are not available for general distribution. The GVRD has partnered with the Vancouver, Richmond Health Board on this initiative.

City of Winnipeg partners with Environment Canada, Manitoba Conservation, the police and media to raise awareness about crop stubble burning. The media responds to press releases and alerts the general public to this problem.

Moncton Public Health Office works with the New Brunswick Lung Association and the Department of the Environment on a smog advisory program that utilizes the media as it's primary source of promotion.

The following municipal level initiative was under development at the time of the survey.

The Lambton Health Unit's "Air Quality Awareness Project" involves the completion of an air quality awareness survey and the identification and development of specific resources according to the targeted groups which are: adults over 65, asthmatics, parents and health professionals. A compiled list of FAQ's will be on-line this year.

Environmental Sector

National

Earth Day Canada has a climate change initiative that uses existing communications networks and vehicles to educate as many as Canadians as possible about the causes and impacts of climate change and individual actions that can mitigate these. Media partners provide “in-kind” advertising and promotion services. National “solutions” newsletters and “EcoKids club project packs” have been produced as education tools. Other Earth Day resources and promotion events and materials include: national posters, EcoKids on-line and earth day on-line websites, Earth Day media conference, public transit information campaign, print and television PSA. Printed materials are delivered through Earth Day’s database. Some information is distributed at kiosks and websites.

National Round Table on the Environment and the Economy - National Forum on Climate Change is directed to the general population. Resources are available for a charge.

Greenpeace Canada’s Solar Pioneers Project involved the creation of a photovoltaic buyers club. This PAI aims to raise public awareness on issues related to climate change and air pollution including health effects. Public events and dissemination of information to members and other organizations rounds out the promotion of this initiative. Partners are Toronto Atmospheric Fund and Natural Resources Canada. Mail out leaflets are distributed free of charge.

Pembina Institute has developed a, “Climate Protection Solutions” website that not only includes success stories but also topics such as the, “Eco savings of behaviour changes”. Interactive tools can be found on-line as well as hundreds of resources geared to individuals and families. (private sector and industry will follow) Partners in this project are Environment Canada, Energy and Resources Canada, Climate Change Action Fund, BP-Amoco, TransAlta, Enbridge, Suncor, Westcoast Energy, Pan-Canadian Petroleum, PetroCanada

Canadian Environmental Law Association (CELA) - Toxics and Health Program. This program works to improve federal and provincial regulations to protect health and environment from toxic substances. The audience includes policy people, political decision-makers, labour and environmental interests as well as the general public. Partners are Ontario College of Family Physicians (environment committee), various labour groups and some cancer survivor groups. CELA recently released a report called “Everyday Carcinogram” which is available for purchase. A children’s’ health report is expected.

Friends of the Earth Clean Air Campaign can be found on the FOE website and offers users a range of clean air actions.

International Institute for Sustainable Development has developed a youth strategy for public outreach on climate change.

Sierra Club's Climate Change Campaign targets the general population by way of a public service announcement. The Club also participates in the national process and manages the Climate Change Action Network media relations.

Pollution Probe and its annual Clean Air Campaign and Commute is a workplace initiative to engage vehicle commuters in considering other modes of transportation. Kits, posters and brochures accompany this PAI and have been created and provided, pro bono, by Vickers and Benson advertising. The materials are distributed at participating workplaces.

The David Suzuki Foundation has initiated a Health and Climate Change Program which seeks to strengthen the links between climate change, air pollution and human health. The "Taking Our Breath Away" series of printed materials and six other climate change reports as well as a website are the primary educational tools which target the general population and health care communities. These tools focus on the detriments of fossil fuel burning, the dramatic reductions necessary to reduce our health risks and existing viable alternative energy sources. Partners in this project include various medical and health organizations and experts, and other non-governmental organizations. Distribution is by website or mail. Costs depend on user.

Provincial/Regional

Commission de la coopération environnementale - Continental Pollutant Pathways Report (1997) reports on an agenda to promote cooperation in addressing long range pollution concerns. The resource is targeted to policy people and concerned citizens. Information can be obtained at the commission's internet site. Hardcopies are also available. Partner is International Air Quality Association (IAQA)

Sound Management of Chemicals Program developed a framework of agreement North American Regional Action Plans. Plan on chemicals and potential harmful pollutants. Directed to general population, stakeholders, government, industry policy makers. Partners are International Joint Commission, New England Governors and Eastern Canada Premiers, Bi-national Strategy Web site and hard copies of resources are available in 3 languages.

Fondation Quebecoise en Environnement translation needed

Province of Saskatchewan has created the Interdepartmental Committee on Public Education and Outreach and the Saskatchewan Stakeholder Advisory Committee (SERM Climate Change Network). These committees coordinate the provincial government's climate change communications and awareness initiatives which have included the creation of a website and meetings with stakeholders. Resources are disseminated to a broad target audience (stakeholders, NGO's and government) by direct mail, newsletter articles, inter and intranet. Partners in these initiatives are Saskatchewan Health, Education, Property Management Corporation, Municipal Affairs, Culture and Housing, Saskatchewan Energy, Power Energy and Mines, Highways and provincial stakeholders.

Government of Prince Edward Island has created and coordinated a Car Emission Clinic in partnership with the Department of Transportation and Public Works, PEI Lung Association, Holland College, Southeast Environmental Association and the Bedeque Bay Environmental Management Association. With advance advertising the annual clinics (5-6 locations on island) provide an educational opportunity. Educators share information with drivers while their cars are being checked. The clinics target youth and adults 20 and over.

Government of Nova Scotia has produced a document entitled, "The State of the Nova Scotia Environment" (1998) that reports on all aspects of Nova Scotia's environment. Partners - see 'enclosed report' The resource is available through departmental offices and schools and can also be downloaded from the government website.

New Brunswick Department of Environment through it's, "New Brunswick Small Organization Forecast (Air Quality Prediction Program) informs the regional public on air quality issues and the effects of depleted ozone. Forecasts are issued twice daily through various media. Data is also available via phone recordings and the internet. Partners are Environment Canada (lead) and New Brunswick Health (main partner). Resources such as fact sheets and internet pages are available through the internet, by mail or at regional offices.

Yukon Government Climate Change initiative is comprised of five fact sheets that describe the effects of climate change in the North and what actions can be taken to reduce green house gas emissions. Awareness is raised through school presentations.

- Plans for the establishment of a Yukon green house gas emissions inventory are

underway.

- A climate centre at Yukon College is planned that would seek to increase the regions capacity in science and foster a technology transfer to the North. Partners in these endeavours are the Federal Government, Yukon College and First Nations.
- An air emissions education campaign is directed at the general population and encourages the reduction of air pollution caused by idling vehicles and wood burning. The City of Whitehorse has partnered with the territorial government on this project. Resources are available at government outlets in the Yukon, by mail, schools and newspaper.

Yukon Conservation Society through it's Energy Efficient House Calls Project provides basic understanding of climate change by demonstrating simple energy efficient initiatives for homeowners. Representatives from the Society also raise awareness about climate change through school presentations. Target audiences are the general population, youth and adults. Partners are Yukon Energy Corporation and Yukon Territories Government.

The Clean Nova Scotia Foundation reported the following initiatives: Home Tune-up, Planet Action Club for Kids (P.A.C.K) The Travelling Environmental Show and Climate Change 2000.

- The Home Tune-up program involves environmental assessments in 2000 homes in the Halifax Regional Municipality. Homeowners receive a recommendation kit that contains information on climate change and the connections between it and daily routines in the home. An previously produced 'insert' is available on climate change. Other resources are available through organizations interested in the program, public displays and mailouts by request at no charge. Partners in this project are: Climate Change Action Fund, Halifax Regional Water Commission, Canadian Oil Heat Association, Nova Scotia Department of Natural Resources as well as the Department of Housing and Municipal Affairs and Halifax Regional Municipality.
- One aspect of the Planet Action Club for Kids (P.A.C.K) focuses on climate change. P.A.C.K is a children's newsletter targeting the elementary grades and teachers. It is published three times during the school year. A Teacher's Guide accompanies the material. P.A.C.K is promoted and available at public events or delivered directly to those that sign up free of charge. Seagull Pewter, Canada Trust, Imperial Oil, Nova Scotia Department of Environment have partnered in this project.
- The Travelling Environmental Show includes the presentation of a climate change video series produced in partnership with Access Communications (now Shaw

Cable) and targeted to the general public. The video titles are: The Science of Climate Change, Climate Change in Nova Scotia, Climate Change and Your Home and Climate Change and Transportation. The videos present general information on climate change in addition to regional issues and are available upon request for a fee. (\$9.95/video or \$33 for set of 4)

- Climate Change 2000 consists of public workshops designed to inform the general population about the science and provincial implications of climate change. The project also provides the opportunity for public discussion of local concerns related to the issue. A climate change brochure is available to general public free of charge via mail outs, public display and events and through organizations such as the Nova Scotia Homebuilders Association. The Climate Change Action Fund, Environment Canada, Nova Scotia Department of Natural Resources, Nova Scotia Department of Environment and Nova Scotia Environmental Network have partnered on this project.

The Ontario Campaign has reported a number of initiatives including the publication of a brochure on clean air. The Sierra Club assists with the distribution of this resource at events. Other partners involved in the following projects are The Toronto Environmental Alliance and The David Suzuki Foundation.

- 'Clean Air Forum' featured Dr. David Suzuki and was held in various southwestern Ontario locations in May 1999.
- 1,800 crosses were erected in Windsor, Ontario symbolizing the number of deaths caused by air pollution, each year in Ontario.
- 'Clean Air Pledge' targeted political leaders and was used to collect signatures in support of nitrogen oxide reductions.
- 'Vote for Clean Air Candidates' ad was published in The Globe And Mail.
- website - www.ontairio.org

Atlantic Coastal Action Program has a few initiatives underway which include the following:

- 'Our Dynamic Climate' and 'Ground Level Ozone Monitoring'
- 'Climate Change Challenge' - a game for elementary aged children available for \$50 (board) or \$250 (floor model).

Education Organizations and their Messages

Manitoba Education and Training Departmental Sustainable Development Strategy is a 3 year plan that looks at how policies and guidelines conform to sustainable development policies. Action plans are then developed and directed to department staff. Currently a recyclable cup initiative along with sustainable development information is available on a one to one basis by invitation.

- Teacher Training on sustainable development is done by Learning for a Sustainable Future. Partners are the schools that participate, International Institute for Sustainable Development and Learning for Sustainable Development.

Saskatchewan School Trustees Association Air Quality and Quality of Health research funding, data collection, verification, test public segments distribute school age children

SEEDS Foundation National Climate Change Program - attached summary Youth Partners are Climate Change Action Fund, Canadian Association of Petroleum Producers, Canadian Environmental Protection Agency. In process of developing resources available September 2000. Workshops, conferences and mail out.

Learning for a Sustainable Future has a wide range of activities targetted at school age children and youth:

- Development of an Education Strategy on Climate Change Bilingual series of inquiries on climate change and sustainability
- Delivery of workshops for teachers (K-12)
- Development of activities for students related to climate change and sustainability
- Posting of inquiries and activities on LSF web site

The Teacher's Federation and Canadian School Board's Association are indirect partners. Resources - in process of producing inquiries - Climate change as it relates to each of the following - science, technology, transportation, energy and business. Teacher's Guides will be available on LSF website and distributed to teacher's at workshops - no charge

Clean Anapolis River Project - Public Awareness, communication and community involvement as it relates to issues of climate change. PA is integrated into what they do. eg. coastal mapping project . broad audience includes homeowners and farmers. Partners - hundreds including International agencies, foundations, federal and provincial departments and municipal governments, United States and State government, universities, volunteer organizations, private corporations. Resources available include a home energy audit, customized brochures, posters, greenhouse gas and info on agroforestry Available through local retail outlets, summer camps, fairs, schools, press releases -no charge

- *Fort Wythe Centre* - Climate Change Education Program. Education to school age children via guides programs. High school / university / college students use climate change field station, general public exhibits and signage indoors and out.
- Partners include the International Institute for Sustainable Development, Canadian Institute for Climate Studies, Environment Canada, Natural Resources Canada.

Private Sector Organizations and their Messages

Suncor Energy Inc. The Alberta Oil Sands Community Exposure & Health Effects Assessment Program. 3 year project winding up now. Multi stakeholder public program that included air monitoring study, regional health study. Report due early 2000 for general population partners, local health department, Syncrude, Alberta Health Department. No resources

TransAlta Corporation Community Awareness on Outdoor Air Pollution in communities around their facilities. Public Advisory Committee open house and forums on dust and particulates - areas of interest and common concerns General population adults No resources.

Telus The Commuter Challenge Bike to Work Week is an in-house promotion of competition between businesses most employees to avoid single occupancy vehicle commute BEST Better Environmentally Sound Transportation. Intranet bulletin

Canadian Fertilizer Institute Distributor and Farmer Safety Training for Anhydrous Ammonia - video and training manual to manage risks associated with handling and use of substance farmers and distributors of product

Cantox Environmental Inc. Public Health Risk Assessment of the Irving Oil Refinery Upgrade. Scientific study of possible risks of adverse health effects from specific emissions. CEI initiated discussions and meetings with community stakeholders to identify issues of concern. Public drop-in sessions were held and newsletters distributed. Telephone line was set up as well as information provided on the website. general audience Partners Gartner Lee Ltd., (Markham, ON) Health Risk Management Group (Washington) www.cantoxenvironmental.com

Appendix G Glossary of Key Terms

Air pollution - air pollution refers to a number of ground level substances which directly damage health by entering the body when we breathe. Ground-level ozone, which is the main ingredient in smog, is formed when oxides of nitrogen meet with hydrocarbons in sunlight. In urban areas, up to three-quarters of the pollutants that combine to form ground-level ozone come from automobiles. For the purposes of the survey air pollution referred only to outdoor air.

Climate change - climate change refers to general, long-term shifts or alterations in the average condition or variability of weather, either regionally or globally. This is measured by changes in all the features we associate with weather, such as temperature, wind patterns, precipitation, and storms. Although an ongoing, natural process, climate change today reflects the dramatic increase in human activity on Earth (namely the burning of fossil fuels such as oil and coal) since the Industrial Revolution. The 20th century has been the warmest century in 600 years with the 1980s and 1990s being the warmest decades on record.

Kyoto Protocol - In Kyoto, Japan, in December 1997, Canada and 160 other industrialized nations committed to reduce their greenhouse gas emissions, as part of an international agreement on climate change. Canada's commitment under this protocol is to reduce its emissions to 6% below 1990 levels by the period between 2008-2012. This will require a 20 to 25 percent drop in emissions.

National Climate Change Strategy (NCCS) - a federal strategy managed by the Climate Change Secretariat which was established in response to the Kyoto Protocol. This strategy is scheduled to be completed by 2000 and will include recommendations made by experts from 16 "Issues Tables" ranging from public education and outreach, to business and industry on what Canada should do to meet Kyoto's targets.

Public awareness initiatives (PAIs) - any program, action, event or material that intends to develop skills or increase knowledge which will ultimately affect change in the behaviour and attitudes and of a target population. Examples of public awareness initiatives range from resource materials and training initiatives to classroom presentations and community action projects.