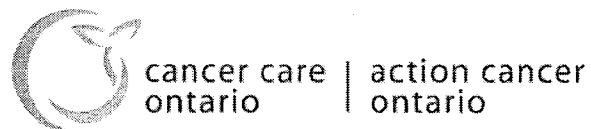


**Proceedings of the
Cancer 2020: Cancer and the
Environment Meeting**

**October 6, 2005
Toronto, Ontario**



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Acknowledgments

Cancer Care Ontario would like to thank the Canadian Cancer Society, Ontario Division, for providing the meeting space and all the participants for attending the meeting. A list of participants is included in Appendix B.

The following people provided input on the agenda: Bill Campbell, Ruth Grier, Robbi Howlett, Carmen Jones, Nancy Kreiger, Sylvia Leonard, Verna Mai and Loraine Marrett.

Efforts of the following people are also acknowledged:

- Hélène Gagné (Cancer Care Ontario): planning
- Brian Hyndman (The Alder Group): facilitator
- Deb Keen (Cancer Care Ontario): leadership
- Christine Lyons (Cancer Care Ontario): proceedings report
- Marilyn Ullrich (Cancer Care Ontario) and Alice Wong (Canadian Cancer Society, Ontario Division): meeting organization and logistics

Executive Summary

For some time, individuals working in the environmental area have expressed a need for an organization like Cancer Care Ontario to bring stakeholders together and provide a means to collaborate on action.

On October 6, 2005, Cancer Care Ontario brought 34 individuals representing provincial organizations and government departments with an interest in the prevention and control of environmental carcinogens together to discuss key priorities and opportunities for joint collaboration. This meeting was organized by Cancer Care Ontario and took place at the Canadian Cancer Society, Ontario Division.

For the purposes of the meeting, environmental carcinogens were defined in terms of contaminants in air, water, and soil (excluding tobacco use and ultraviolet exposure). The intent was to focus on areas with little or no existing structures. However, the critical interaction between occupational and environmental exposures was recognized.

Brian Hyndman of The Alder Group facilitated the meeting. Brian also prepared a background paper for the meeting entitled *Strategies for the Reduction and Control of Environmental Carcinogens in Canada: What's Happening? What's Missing?* This paper provided an overview of government and industry efforts in relation to environment and cancer. It focused on five key strategies to address the prevention and control of environmental carcinogens within Canada and elsewhere: surveillance, 'right-to-know' measures, public education initiatives, reductions of carcinogens at the source and legislative/regulatory measures. Identified gaps for each strategy were highlighted. The paper concluded with a summary of potential opportunities for action on environmental carcinogens to stimulate meeting discussion.

After a presentation and discussion about Brian's paper, participants worked in small groups to identify priorities for action. The small groups reconvened and reported on their discussions. The following areas of agreement were discerned, based on themes from Brian's paper:

- Research/knowledge translation: There is limited research capacity in Ontario, and there are gaps in existing capacity; but this lack of research capacity is really not a barrier. A current snapshot on environmental carcinogens by a reputable agency is needed. The emphasis should be to turn exposure information into action. Collaboration is needed to improve knowledge translation between different disciplines and to break down silos in order to develop common understanding. Information needs to be shared between sectors.
- Surveillance: It is not clear how existing databases are used. Existing databases need to be built on and improved. Deficits with existing surveillance mechanisms need to be fixed before new tools are created. Studies on longitudinal exposures from childhood are needed.
- Public education: More efforts are needed to: educate health professionals, promote peoples' ability to make healthier choices, promote increased right-to-know practices (e.g. eco-labeling, Proposition 65-California's Safe Drinking Water and Toxic

Enforcement Act), and to increase awareness about children's exposures and be proactive toward policy change (e.g. pesticide by-laws).

- Incentives: There is a mix of carrots and sticks – taxation, low interest loans, making examples of CEOs. Substitution needs to be encouraged.
- Legislation: Ontario needs to be more proactive about regulations for toxin reductions. Some legislation may need to be prescriptive and include targets, in order to achieve reductions. We need to start locally, by working with municipalities as the venue for legislation with targets for reduction.

The following overriding priorities or opportunities from the group reports were also identified:

- Priorities need to be set.
- The Public Health Agency of Ontario's mandate for action on environmental carcinogens needs to be influenced.
- The Government of Ontario/Premier needs to go on record about this issue to motivate action in all sectors and government ministries (e.g. health, energy, environment, transportation).
- Affected parties need to be mobilized, e.g. organizing an advocacy coalition such as the Ontario Campaign for Action on Tobacco (OCAT).
- Cancer Care Ontario's regional cancer prevention and screening networks can be tapped as a catalyst to bring people together.

The participants brainstormed a list of potential next steps. The following short-term activities were identified for immediate action:

- An advocacy group of interested individuals could be convened.
- A scientific case group of interested experts could be convened.
- A meeting with media/policy makers could be organized.
- The election platforms of provincial government parties should be reviewed.
- Mandates of the Ontario Ministry of Health and Long-Term Care's Environmental Health Branch, the Ontario Ministry of Health Promotion, and the Public Health Agency of Ontario should be influenced if possible.
- More work should be done to define the immediate goal for this group.
- A follow-up meeting of this group should be organized.

Cancer Care Ontario has organized a follow-up meeting for participants to further explore next steps. In the meantime, Cancer Care Ontario will support meetings of the advocacy and scientific case groups as they are convened.

It was recognized that Cancer Care Ontario, the Canadian Cancer Society, Ontario Division, and the Public Health Agency of Ontario have a role to play in this important area but collectively more capacity and resources are needed from all involved stakeholders to move forward. It was further recognized that leadership on this issue needs to come from the people who attended this meeting, as there is much knowledge and experience to draw on.

Introduction

On October 6, 2005, 34 individuals representing provincial organizations and government departments with an interest in the prevention and control of environmental carcinogens met to discuss key priorities and opportunities for joint collaboration (see Appendix A for the agenda and Appendix B for a list of participants). This meeting was organized by Cancer Care Ontario and took place at the Canadian Cancer Society, Ontario Division.

The overall objectives of the meeting were:

- To determine the key priorities for prevention of exposure to environmental carcinogens.
- To identify opportunities for joint collaboration among key stakeholder groups with an interest in the prevention and control of environmental carcinogens.

Environmental carcinogens were defined in terms of contaminants in air, water, and soil (excluding tobacco use and ultraviolet exposure).

The following report is a summary of meeting discussions and outcomes.

Welcome and Opening Remarks

Deb Keen, director of the Prevention Unit of Cancer Care Ontario, welcomed the participants, thanked the Canadian Cancer Society, Ontario Division, for the use of their facilities, and introduced Terry Sullivan, president and CEO of Cancer Care Ontario who provided the opening remarks.

Cancer is the leading cause of premature death in Ontario. This year alone, more than 55,000 Ontarians will be diagnosed with cancer, and 25,000 will die from the disease. In fact, the number of new cancer cases diagnosed each year in Ontario is expected to increase to 80,000 in 2015. The cancer burden will continue to grow unless we provide a greater focus on primary prevention and early detection and the development and implementation of provincial level strategies.

Preventing cancer is a big focus for Cancer Care Ontario. Targets and objectives for cancer prevention and detection were released in 2003 through Targeting Cancer: An Action for Cancer Prevention and Detection—Cancer 2020. Cancer 2020 includes occupational and environmental carcinogens.

Four years ago, Dr. Ken Shumack (then president of Cancer Care Ontario) asked Terry to meet with a group of environmental activists along with Dr. Les Levine from the Ontario Ministry of Health and Long-Term Care. Shortly thereafter, scientific staff from Cancer Care Ontario engaged scientists to explore candidate areas of focus in Ontario for the environmental/cancer relationship. In 2001, Cancer Care Ontario hosted an expert panel which identified eight candidate environmental exposures that might warrant special attention going forward in Ontario,

and released a report on this workshop. In 2005, Cancer Care Ontario and the Canadian Cancer Society, Ontario Division, released *Insight on Cancer: Environmental Exposures and Cancer*, which considered the candidate exposures from the workshop report and reviewed published and official reports relating to selected environmental exposures and the risk of cancer.

Science is often ambiguous when it comes to the relationship between cancer and the environment. Often, environmental causes of cancer are less well documented and the evidence is not always readily available nor is it easy to track. But, we want to keep a focus in this area. Cancer Care Ontario and the Workplace Safety and Insurance Board have been working together for three years on an occupational cancer research and surveillance project (using CAREX¹). Two notable outcomes of this collaboration were a paper on the relationship between firefighting and cancer, and a proposal to advise mesothelioma patients about occupational exposures. Cancer Care Ontario is hiring a scientist to continue to focus on occupational carcinogens.

In 10 days, the Agency Implementation Task Force will be releasing its first report on structural recommendations for Ontario's New Public Health Agency. One focus of the agency will be to build capacity in the area of environment and surveillance. This will require linking together people who are already doing work in this area with the new agency.

As a surveillance and cancer control agency, Cancer Care Ontario has a role to play in identifying potential risks for cancer, the surveillance and publication of those risks, supporting research on those risks and advising government. Cancer Care Ontario also acts as a catalyst and partner with other cancer control agencies and non-governmental organizations to move the cancer prevention agenda forward—including environmental carcinogens. Preventing population wide exposure to environmental carcinogens is an important component of a comprehensive cancer control strategy.

Post-meeting note:

- Targeting Cancer: An Action for Cancer Prevention and Detection—Cancer 2020 is available online at (background report) <http://www.cancercare.on.ca/documents/Cancer2020BackgroundReportMay2003.pdf> or (summary report) http://www.cancercare.on.ca/documents/Cancer2020CCS-1513Report_summary.pdf (A copy of the summary report was included in the meeting package).
- Report of the Agency Implementation Task Force. Building an Innovative Foundation: A Plan for Ontario's New Public Health Agency, Part One is available online at http://www.health.gov.on.ca/english/public/pub/ministry_reports/agency_05/agency_05.pdf.

¹ CAREX is an information system developed by the Finnish Institute for Occupational Health. CAREX estimates the number of workers exposed to 139 carcinogens as ranked by the International Agency for Research on Cancer (IARC): Group 1: known, Group 2A: probable and Group 2B: suspected carcinogens, and some Group 3 exposures (not classifiable, according to IARC, as to carcinogenicity to humans). CAREX combines occupation and industry data (from the Canadian census) with exposure estimates from Finland and the U.S. to estimate numbers of Ontario workers exposed to carcinogens above a pre-determined threshold (substance-specific), by given industries.

- Workshop Report: Environmental Exposures and Cancer Prevention is available online at <http://www.cancercare.on.ca/pdf/EHP.pdf>.
- Insight on Cancer: Environmental Exposures and Cancer is available online at <http://www.cancercare.on.ca/documents/InsightOnCancer-Environmental05.pdf>. (A copy of this monograph was included in the meeting package).

Overview of the Day

Since joining Cancer Care Ontario in January 2005, Deb Keen has heard from a number of individuals working in the environmental area saying that there was a need for an organization like Cancer Care Ontario to take on the role of bringing stakeholders together and providing a means to collaborate.

A positive new development was announced last week with the release of the new organizational chart for the Public Health Division of the Ontario Ministry of Health and Long-Term Care, which includes an Environmental Health Branch (a director will be recruited).

For today's discussion context, environmental carcinogens will be referred to in terms of air, water, and soil. It does not include tobacco use (which has a very comprehensive provincial strategy) or ultraviolet exposure (which has some structure already). The intent is to focus on the areas with little or no existing structures. However, there is recognition of a critical interaction between occupational and environmental exposures. It is further recognized that the history of occupational exposures work has helped us get here today.

The objectives of the meeting were reviewed. The purpose of the meeting is to identify priorities and ways to move forward effectively.

Deb introduced Brian Hyndman from The Alder Group as the meeting facilitator and author of the overview paper prepared for this meeting (see Appendix C for Brian's biography). The overview paper was completed to provide a starting point for discussion at today's meeting, particularly in relation to the gaps and opportunities that it highlighted.

Overview on Environment Cancer: What's Happening, What's Missing?

Cancer Care Ontario contracted Brian Hyndman to prepare an overview of government and industry efforts in relation to environment and cancer as background material for the meeting. Brian made use of recently released documents, and acknowledges the Wordsworth document prepared for the Canadian Strategy for Cancer Control (CSCC) as a key reference (this was a very thorough primer for occupation and environment). Brian's document, Strategies for the Reduction and Control of Environmental Carcinogens in Canada: What's Happening? What's Missing?, was included in the meeting package.

Brian provided an overview of the five key strategies that the paper addresses for the prevention and control of environmental carcinogens within Canada and elsewhere: surveillance, 'right-to-know' measures, public education initiatives, reductions of carcinogens at the source and legislative/regulatory measures. Identified gaps for each strategy were highlighted. The presentation concluded with a summary of potential opportunities for action on environmental carcinogens to stimulate today's discussion. A group discussion followed.

For more details, refer to the presentation slides in Appendix D.

Group Discussion

- The Miller report was the first government report to recognize the precautionary principle, which was ground breaking in 1994. Since that time, in the area of environmental carcinogen reduction, there has been: 1) more acceptance of the precautionary principle (even if only lip service), 2) the adoption of comprehensive strategy thinking, 3) more work by industry on just transition, and 4) more emphasis on and opportunity for community right-to-know.
- The paper was clear and provided a useful outline for priority of actions. There is a climate for change. The paper is a perfect lead-in for provincial action because there will be an election in 2 years. The current government is focused on health, and the environment angle is a perfect topic for agency education days at Queen's Park (e.g. Canadian Cancer Society, Ontario Division).
- The reason for this meeting is to move the issue forward. Politicians tend to have the view that environment has little impact on the cause of cancer. The myth of environment as a small contributor to cancer needs to be dismantled. A sense of urgency about this issue has to be raised. The Pollution Watch Web site provides trend analysis; since the 1990s, carcinogenic discharges have not leveled out. What hasn't changed since 1994 is what's happening in the real environment.
- This all speaks to the barrier of lack of government action on the issue.
- There are a number of published methodological approaches for the weight of evidence in regards to environmental carcinogens. The standard list is from the International Agency for Research on Cancer (IARC), which has a classification scheme. As noted earlier in Terry's opening remarks, Cancer Care Ontario published a list of eight environmental exposures that might warrant special attention in Ontario. Environment Canada uses IARC's lists. There are other lists as well.
- One of the strengths of Brian's paper is that it identifies where action has been taken in the face of lack of evidence. The examples illustrate that we can communicate what we know and what we don't know. When Toronto Public Health released its ten key carcinogens report, it admitted that there was a lot that was not known but it still provided some tips for citizens.
- Leaving the precautionary principle aside, there is still a lot we do know and action that can be taken (and some has been taken).
- The presentation nicely demonstrated that evidence is only one small part of the issue.
- For whom is surveillance data good news? It is not clear. It is not good news for people, sources/suppliers, population/public health or cancer control. We need to determine

what the good news story is or should be. Who can keep this long-view story then? Government or scientists cannot. The potential for primary prevention is one possible good news story.

- We have to move beyond barriers to take action, but there is no place to think differently or innovatively about the issue. There is a deeper sense of urgency and logic. One reason that the Toxics Use Reduction Institute (TURI) is so important to us is that it does turn the question on its head—it tries to solve the problem, not answer questions.
- Although the discussion today is framed around the environment, the synergy between environment and occupation is vitally important and must be acknowledged.
- Just transition is useful but originally it also addressed the impact on workers (and potential loss of jobs due to changes in work processes).
- An environmental carcinogens forum is being planned for 2007. This forum is a follow-up to the Everyday Carcinogens conference held in 1999.
- In addition to the urgency for action on what we already know, there is an astounding lack of understanding about the issue among graduate students. Education on environmental carcinogens is needed for health professionals.
- Childhood exposure needs some focus. A film on children's exposure is currently being produced by Dorothy Goldin Rosenberg. The Canadian Partnership for Children's Health and Environment recently released a primer on child health and the environment and an accompanying brochure on childproofing for environmental health. Copies of these resources were made available to meeting participants.
- Environmental advocates and champions are delighted that Cancer Care Ontario and the Canadian Cancer Society, Ontario Division, are becoming much more involved in the issue, and it is hoped that this involvement will continue.
- The Ontario Federation of Labour has been very critical of Cancer Care Ontario in the past about ignoring links between occupation and environment and cancer. Today's session is a positive step. Cancer Care Ontario was commended for bringing everyone together today, and in moving forward on both occupation and environment.

Post-meeting note:

- Prevention of Occupational and Environmental Cancers in Canada: A Best Practices Review and Recommendations, written by Anne Wordsworth for the CSCC's National Committee on Environmental and Occupational Exposures, is available online at http://www.ohcow.on.ca/press_release/BestPracticesReview_FinalReport_May2005.pdf.
- Pollution Probe's Web site is available at <http://www.pollutionwatch.org>.
- IARC has grouped carcinogens into four categories, depending on their risk to humans. Group 1 is for agents that are carcinogenic to humans. Group 2 is for agents that are probably (Group 2A) and possibly (Group 2B) carcinogenic to humans. Agents in Group 3 are those that are not classifiable as carcinogenic to humans. Group 4 are agents that are probably not carcinogenic to humans. For more information about these groups and IARC's methodology for classification, visit the IARC Web site at <http://www-cie.iarc.fr/monoeval/grlist.html>.

- Toronto Public Health's Ten Key Carcinogens in Toronto Workplaces and Environment: Assessing the Potential for Exposure report is available at http://www.toronto.ca/health/cr_index.htm.
- For more information on Massachusetts' TURI, visit its Web site at <http://www.turi.org/>.

Identifying Potential Priorities for Action

Participants were assigned to one of four small groups, and asked to identify priorities for action. Leading questions were provided in a handout (see Appendix E). Each group was asked to identify a recorder and a reporter. The groups met for approximately 90 minutes.

Following lunch, the small groups reconvened in plenary, and the reporter from each group provided an overview of what was discussed. The notes from each group are included in Appendix E.

Plenary

In plenary, Brian identified areas of agreement and recurring themes/issues that he discerned from the group reports:

- **Research/knowledge translation:** There is limited research capacity in Ontario, and there are gaps in existing capacity; but this lack of research capacity is really not a barrier. A current snapshot on environmental carcinogens by a reputable agency is needed. The emphasis should be to turn exposure information into actions. Collaboration is needed to improve knowledge translation between different disciplines and to break down silos in order to develop common understanding. Information needs to be shared between sectors.
- **Surveillance:** It is not clear how existing databases are used. Existing databases need to be built on and improved. Deficits with existing surveillance mechanisms need to be fixed before new tools are created. Studies on longitudinal exposures from childhood are needed.
- **Public education:** More efforts are needed to: educate health professionals, promote peoples' ability to make healthier choices, promote increased right-to-know practices (e.g. eco-labeling, Proposition 65-California's Safe Drinking Water and Toxic Enforcement Act), and to increase awareness about children's exposures and be proactive toward policy change (e.g. pesticide by-laws).
- **Incentives:** There is a mix of carrots and sticks – taxation, low interest loans, making examples of CEOs. Substitution needs to be encouraged.
- **Legislation:** Ontario needs to be more proactive about regulations for toxin reductions. Some legislation may need to be prescriptive and include targets, in order to achieve reductions. We need to start locally, by working with municipalities as the venue for legislation with targets for reduction.

Brian also highlighted overriding priorities or opportunities that he heard from the group reports:

- There is a priority itself of the act of prioritization. Actual work is needed to set priorities.

- There is an opportunity to influence the Public Health Agency of Ontario's mandate for action on environmental carcinogens.
- The Government of Ontario/Premier need to go on record about this issue to motivate action in all sectors and government ministries (e.g. health, energy, environment, transportation).
- There is a need to start mobilizing affected parties, e.g. organizing an advocacy coalition such as the Ontario Campaign for Action on Tobacco (OCAT).
- There is an opportunity to tap into Cancer Care Ontario's regional cancer prevention and screening networks as a catalyst to bring people together.

Following Brian's overview of themes, priorities and opportunities that emerged from the small group exercise, participants were given an opportunity to discuss what they had heard.

Group Discussion

- A lot more movement is needed to make environmental carcinogens a priority. There is a need to identify funders (past, current and future). A picture of the "body count" per riding is needed (proxies could be used, e.g. increase in cancer incidence, cancer clusters), which would result in a strong story to tell.
- There will be a provincial election in October 2007. Parties are already forming their platforms. Time is of the essence to give them messages. We need to get polling or focus group results to demonstrate the concern related to environmental carcinogens.
- Not only do we need to educate government officials, we also need to educate the public. Pesticide by-laws demonstrate this partnership model well. The Toronto Environmental Alliance hired strategic lobbyists and analysts and created a multi-stakeholder body to support the by-law. At the same time, the awareness of constituents was raised and they in turn engaged their councilors.
- The knowledge that Members of Provincial Parliament have about the issue needs to be gauged. What constituents are concerned about also needs to be gauged.
- Part of the discussion is what Cancer Care Ontario can do. It was suggested that Cancer Care Ontario owns the brand on cancer and is considered by the public as the authority in this area. Partners need to be asked to help Cancer Care Ontario strengthen its authority on this issue.
- Cancer Care Ontario does research, surveillance on cancer incidence and mortality, and facilitation, but it is not the leader on environmental issues. Advocacy is difficult for the organization because it is a Schedule 3 provincial agency. Cancer Care Ontario is hoping that today's discussion will help everyone move ahead and that the people here could provide the expertise to move forward.

Post-meeting note:

- For information on OCAT, visit its Web site at <http://www.ocat.org/>.

Next Steps

In plenary, the group discussed some next steps that could happen to foster collaborative action on the identified priorities.

Group Discussion

- There is an opportunity for Cancer Care Ontario to make a case, through its Board of Directors, that it is time to make a submission to government about environmental carcinogen prevention. There is a huge good news message for cancer survivors who suspect that the environment had a hand in their cancers. This would be a good news message economically as well.
- Environmental health should be included in the Mandatory Health Programs and Services Guidelines.
- Cancer Care Ontario could pull all other cancer organizations together to discuss action in this area.
- It is recognized that Cancer Care Ontario cannot do everything but they are a key leader.
- An advocacy arm is needed, and a follow-up meeting of groups that can and want to advocate is a first step.
- There is a need to collaborate with other disease groups (e.g. respiratory and children's health) where the links between illness and environment are stronger than they currently are for cancer, in order to help make a case for action.
- There is a distortion of science by politics. More work needs to be done to teach people how to understand and interpret research results and statistics (perhaps this should be part of high school curricula across Ontario). Cancer Care Ontario could have an interesting role here.
- Tobacco has had experience with the tobacco industry creating "junk science". A round table of André Picard and other media and political party researchers etc. could be convened. We could ask for their advice on the best way to translate scientific information. We could also ask them what criteria they use to assess information and then when communicating with them, we could outline the criteria we are using.
- A credible expert panel to give indication on the science behind the issue would also be useful.
- A "body" to coordinate and facilitate is needed (not to replace work of stakeholders, but to support it) i.e., a clearinghouse idea to help in the initial stages until funding is obtained and structure established. Whatever structure is built must facilitate participation of all stakeholders.
- There may be an opportunity to influence how the Environmental Health Branch will be shaped (a one-page overview of the mandate and key areas of responsibility for this branch was distributed).
- Cancer Care Ontario is committed to producing and distributing a comprehensive set of proceedings from this meeting.
- Cancer Care Ontario could act as a link for networks and other groups. Cancer Care Ontario cannot advocate but it can educate and raise awareness.

- This group could recommend an awareness day on environmental/occupational health with government.
- Cancer agencies which fundraise could put more effort into raising funds for primary prevention (e.g. Run, Walk & Roll for Cancer Prevention).

Short-Term Actions

A list of short-term activities was generated:

- The advocacy group could be convened.
- The scientific case group could be convened.
- A meeting with media/policy makers could be organized.
- The election platforms of provincial government parties should be reviewed.
- Mandates of the Ontario Ministry of Health and Long-Term Care's Environmental Health Branch, the Ontario Ministry of Health Promotion, and the Public Health Agency of Ontario should be influenced if possible.
- More work should be done to define the immediate goal of this group.
- A follow-up meeting of this group should be organized.

It was recognized that Cancer Care Ontario, the Canadian Cancer Society, Ontario Division, and the Public Health Agency of Ontario have a role to play in this important area but collectively more capacity and resources are needed to move forward. It was further recognized that leadership on this issue needs to come from the people who attended this meeting, as there is much knowledge and experience to draw on.

Closing Remarks and Adjournment

Deb Keen thanked everyone for participating. The meeting was quite informative and was a great opportunity to bring all of this knowledge and skill into one room. It was a productive day which has given us a starting point to move forward.

Cancer Care Ontario and the Canadian Cancer Society, Ontario Division, do have a role to play in this area, but collectively more capacity and resources from all involved stakeholders are needed to move forward.

Cancer Care Ontario is offering support to build capacity and provide some initial structure to share information.

Some good progress was made but there is still some unfinished business. As a follow-up, Cancer Care Ontario will organize another in-person meeting, to be scheduled when the proceedings of the meeting are ready, to further explore next steps.

In the meantime, the two small ad hoc working groups will be convened. Cancer Care Ontario will help organize the scientific case meeting. Leadership for organizing the advocacy group

meeting will come from elsewhere. Before leaving, participants were encouraged to sign up for a small working group of interest.

Deb Keen thanked everyone for attending and the meeting was adjourned.

Post-meeting notes:

- A number of participants signed up for the working groups.
- The follow-up meeting is set for December 6, 2005 at the Canadian Cancer Society, Ontario Division, office. Additional details will be shared with meeting participants.
- The Ontario Medical Association has offered to convene the advocacy working group.

Appendix A: Original Meeting Program and Documents Distributed

Original Program

8:30	Registration Coffee and Light Breakfast	
9:00	Welcome and Introductions	<ul style="list-style-type: none"> • Deb Keen, Director, Prevention Unit, CCO
9:00	Opening Remarks	<ul style="list-style-type: none"> • Terry Sullivan, CEO, Cancer Care Ontario
9:20	Overview of the Day (Background, Objectives and Process)	<ul style="list-style-type: none"> • Deb Keen
9:30	Overview on Environment and Cancer: What's Happening, What's Missing?	<ul style="list-style-type: none"> • Brian Hyndman, The Alder Group
10:15	Questions/Discussion	<ul style="list-style-type: none"> • H��l��ne Gagn��, Senior Planner, Prevention Unit, CCO
10:20	Break	
10:45	Small Group Exercise – Identifying Potential Priorities for Action	
11:45	Plenary Discussion of Identified Priorities	<ul style="list-style-type: none"> • Brian Hyndman, Facilitator, The Alder Group
12:15	Lunch	
	Small Group Exercise 2 – Identifying Potential Roles for Partners	
2:15	Next Steps	<ul style="list-style-type: none"> • Brian Hyndman
2:30	Closing Remarks	<ul style="list-style-type: none"> • Deb Keen
2:35	Adjournment	

Documents Included in Meeting Package:

- Meeting program
- Environmental carcinogens section from: Targeting Cancer: An Action Plan for Cancer Prevention and Detection. Cancer 2020 Background Report. Toronto, ON: Cancer Care Ontario and Canadian Cancer Society, Ontario Division, 2003.
- Hyndman, Brian. Strategies for the Reduction and Control of Environmental Carcinogens in Canada: What's Happening? What's Missing? Paper prepared for Cancer Care Ontario, September 2005.
- Cancer 2020 Steering Committee. Targeting Cancer: An Action Plan for Cancer Prevention and Detection. Cancer 2020 Background Report. Toronto, ON: Cancer Care Ontario and Canadian Cancer Society, Ontario Division, 2003.
- Cancer Care Ontario. Insight on Cancer: Environmental Exposures and Cancer. Toronto, ON: Cancer Care Ontario and Canadian Cancer Society, Ontario Division, 2005.
- Evaluation form

Documents Distributed During Meeting:

- One-page overview of mandate and key areas of responsibility for the Environmental Health Branch of the Ontario Ministry of Health and Long-Term Care's Public Health Division

Documents Made Available During Meeting by Participants:

- Canadian Partnership for Children's Health and Environment. Child Health and the Environment – A Primer. Toronto, ON: Canadian Partnership for Children's Health and Environment, 2005.
- Canadian Partnership for Children's Health and Environment. Playing it Safe: Childproofing for Environmental Health. Toronto, ON: Canadian Partnership for Children's Health and Environment, 2005.

Appendix B: Participants List

Alan Abelsohn

Member
Canadian Association of Physicians for the Environment

Louise Aubin

Member
Ontario Public Health Association Environmental Health Work Group

Sheila Block

Director for Health and Nursing Policy
Registered Nurses Association of Ontario

Nick DeCarlo

National CAW Representative for Health and Safety
Canadian Auto Workers

Vern Edwards

Health and Safety Director
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Krista Friesen

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Hélène Gagné

Senior Planner, Prevention Unit
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Michael Gilbertson

PhD student

Dorothy Goldin Rosenberg

Professor
Ontario Institute for Studies in Education,
University of Toronto

Ruth Grier

Member
Provincial Cancer Prevention and Screening Council

Bruce Hay

President
Ontario Parks Association

Dale Henry

Director, Standards Development Branch
Ontario Ministry of Environment

Brian Hyndman

Meeting facilitator
Associate, The Alder Group

Carmen Jones

Director, Aboriginal Cancer Care Unit
Division of Preventive Oncology, Cancer Care Ontario

Deb Keen

Director, Prevention Unit
Cancer Care Ontario

Andy King

National Health, Safety and Environmental Coordinator
United Steelworkers of America, National Office

Nancy Kreiger

Director, Research Unit
Division of Preventive Oncology, Cancer Care Ontario

Robert Kyle

Commissioner & Medical Officer of Health
Durham Region Health Department

Christine Lyons

Planning Analyst, Prevention Unit
Division of Preventive Oncology, Cancer Care Ontario

Verna Mai

Acting Vice-President, Preventive Oncology
Cancer Care Ontario

Loraine Marrett

Director, Surveillance Unit
Division of Preventive Oncology, Cancer Care Ontario

John McLaughlin

(Incoming) Vice-President, Preventive Oncology
Cancer Care Ontario (as of November 1, 2005)

Paul Muldoon

Executive Director
Canadian Environmental Law Association

Fiona Nelson

Chair
Toronto Cancer Prevention Coalition

Patti Payne

Senior Manager, External Relations/Cancer Control, Cancer Control Department
Canadian Cancer Society, Ontario Division

Michael Perley
Director
Ontario Campaign for Action on Tobacco

Gloria Rachamin
Toxicologist, Environmental Health and
Toxicology Unit
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Beth Savan
Director of Environmental Programs
Innis College, University of Toronto

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Appendix C: Facilitator's Biography (Brian Hyndman)

Brian Hyndman is an associate with The Alder Group, a consulting firm dedicated to health promotion. Since completing his Masters of Health Sciences degree in Community Health at the University of Toronto (1991), he has served as a consultant for a number of public health research and evaluation initiatives including:

- The Community Action Program for Children (Brighter Futures) project,
- The Royal Commission on New Reproductive Technologies,
- The National Forum on Health,
- The Ontario Task Force on the Primary Prevention of Cancer (which produced the Recommendations for the Primary Prevention of Cancer: The Report of the Ontario Task Force on the Primary Prevention of Cancer – also referred to as the Miller Report), and
- The World Health Organization (WHO) Committee on Health Promotion.

Brian is a citizen representative on the Toronto Board of Health. Prior to joining the Alder Group, Brian worked in The Health Communications Unit at the University of Toronto.

Brian is also a member of the Toronto Cancer Prevention Coalition.

Appendix D: Presentation Slides

Strategies for the Reduction and Control of Environmental Carcinogens: What's Happening? What's Missing?

Brian Hyndman
The Alder Group
October 6, 2005

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Key Principles for Action on Environmental Carcinogens (Toronto Cancer Prevention Coalition (2001))

- The precautionary principle
- The weight of evidence approach
- pollution prevention
- just transition
- communities' right to know

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Strategies for the prevention and control of environmental carcinogens

- surveillance
- 'right-to-know' measures
- public education initiatives
- reductions of carcinogens at the source
- legislative/regulatory measures

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Surveillance

- Surveillance of confirmed cancer cases
- Surveillance of exposures to environmental carcinogens

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Surveillance of confirmed cancer cases

- databases maintained by provincial and territorial cancer agencies (e.g., Ontario Cancer Registry)
- **National Enhanced Cancer Surveillance System**, national database established to examine factors contributing to cancer

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Surveillance of Environmental Exposures to Carcinogens

- **Northern Contaminants Program**
- **Alberta Community Exposure and Health Effects Program**

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Surveillance measures in other jurisdictions


- **National Report on Human Exposure to Environmental Chemicals** (U.S. Centers for Disease Control)

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Gaps in Surveillance System

- work and residential history information needed to identify environmental exposures of cancer patients is not recorded
- absence of national bio-monitoring program tracking human exposures to environmental carcinogens


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Right-To-Know Measures

- **National Pollutants Release Inventory** established by Canadian Environmental Protection Act (1999)
- **PollutionWatch** database (maintained by Canadian Environmental Law Association)
- **Ontario Safe Drinking Water Act and Water Quality Standards Regulation** (2002)


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Right to Know Measures

- labelling on consumer products **The Food and Drugs Act**
- **The Environmental Choice Program** (Environment Canada)


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Right to Know Measures in Other Jurisdictions

- **Emergency Planning and Community Right-to-Know Act and Toxics Release Inventory** (U.S.)
- **Fair Packaging and Labelling Act** (U.S.)


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Right to Know Measures in Other Jurisdictions

- **Safe Drinking Water and Toxic Enforcement Act** (California)
- **Hazardous Chemicals Lists** (Denmark, Sweden)
- **Eco-labelling** (e.g., the Swan)


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Gaps in Right-to-Know Measures

- lack of community access to information on chemicals being used or stored in facilities
- **National Pollutants Release Inventory** disclosure regulations only cover companies releasing large amounts of toxins
- consumer products regulations do not require full disclosure of all potentially hazardous ingredients


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Public Education Initiatives

- Labour-Environmental Alliance Society (LEAS)
- Reach for Unbleached
- Women's Healthy Environment Network


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Public Education Initiatives in Other Jurisdictions

- U.S Breast Cancer Fund
- Greenpeace
- Friends of the Earth (pledge card campaign)

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Gaps in Public Education Initiatives

- lack of easily accessible information about 'everyday' carcinogens in the environment and consumer products

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Reductions of Carcinogens at the Source

- **Novopharm** (Scarborough)
- **Interface** (Belleville, Ontario)
- **Campbell River Gold Mine** (Red Lake Ontario)

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Source Reduction Initiatives in Other Jurisdictions

- **Massachusetts Toxics Use Reduction Act** (1989)
- **Swedish Environmental Code**

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Gaps in Source Reduction Initiatives

- no toxics use reduction legislation in Canada
- lack of mandatory pollution prevention requirements or policies aimed at eliminating or substituting for carcinogens
- limited supports and resources to assist companies in making substitutions for environmental carcinogens

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Legislative/Regulatory Measures

- **Canadian Environmental Protection Act** (1999)
- **Pulp and Paper Mill Chlorinated Dioxins and Furans Effluent Regulations** (under the Fisheries Act)
- Provincial emission standards (e.g., **Environmental Protection Act** in Ontario)
- municipal by-laws (pesticides and sewer use)

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Legislative/Regulatory Measures in Other Jurisdictions

- **European Union's Regulation, Evaluation and Authorization of Chemicals (REACH)**

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Gaps in Legislative/ Regulatory Measures

- current Canadian legislation emphasizes pollution prevention rather than substitution and the precautionary principle

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Opportunities for Action on Environmental Carcinogens


- educate the public and decision-makers about the five key principles guiding the reduction and control of environmental carcinogens
- advocate for the collection of occupational and environmental exposure information by provincial cancer control agencies/programs
- encourage the development of bio-monitoring programs tracking human exposure to environmental carcinogens

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Opportunities for Action on Environmental Carcinogens

- advocate for disclosure regulations enabling individuals to access information about chemicals used or stored at facilities in their communities
- advocate for amendments to existing consumer products legislation to require full disclosure of all potentially hazardous ingredients
- increase public education campaigns about 'everyday' carcinogens in the environment and consumer products and the availability of non-hazardous alternatives

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Opportunities for Action on Environmental Carcinogens

- advocate for the introduction of toxic use reduction legislation in Ontario modelled on the **Massachusetts Toxics Use Reduction Act**
- encourage all levels of government to provide increased supports and incentives for industries to make substitutions for carcinogens, and, where possible, eliminate carcinogens from their production processes

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Appendix E: Small Group Exercise—Leading Questions and Group Notes

Questions for Discussion

The following questions guided the small group exercise discussions:

Exercise 1: Identifying Potential Opportunities for Collaboration

1. Given the current situation in Ontario, what are the key priorities:
 - a) for research and knowledge transfer activities addressing environmental carcinogens?
 - b) for the development of databases and other surveillance tools tracking the prevalence of environmental carcinogens?
 - c) for educational/awareness raising programs?
 - d) for incentives and other measures encouraging reductions in environmental carcinogens and/or the adoption of healthier alternatives?
 - e) for legislative, policy and regulatory measures?

2. How can we work together to take action on these priorities:
 - a) through networking and information sharing?
 - b) through awareness raising/educational activities?
 - c) through lobbying and advocacy?
 - d) other ideas for collaboration?

Exercise 2: Identifying Potential Roles for All Partners

1. What role could you or your organization play in responding to the identified priorities?

2. What are some logical 'next steps' that should happen after this meeting in order to foster collaborative action on the identified priorities?

Group Notes

Notes recorded on flipcharts by each small group are included:

Group 1

Q1:

- Public is concerned & asking questions
- Hasn't become an issue on the larger radar
- Difficult to do research – so many exposures, developing cells, eggs, sperms
- Cosmetic use of pesticides – increase awareness, increase movement
- Education very important
- Need for a reputable agency to take a "2005" snapshot
- Air pollution – indoor air exposures much higher (higher exposure)
- Challenge: data quality

- Gap btwn public view that env. causes cancer & the scientists view
- Opportunities for collaboration:
 - Btwn agencies - education around prevention
 - Research for policy change? For public education? Need to be clear
- How does the precautionary principle play in?
- How do we transition society to less harmful activities, i.e. diesel trucks to using rail
- CCO/CCS could be leaders; Insight on Cancer 1st step
- Knowledge transfer:
 - Internal to profession – have physicians talk to patients re: avoidable exposure
 - Public health's possible info dissemination role
 - CCO ◻ driver
 - Env. health exposures not just a carcinogenic exposure – other disease risks
- Who else to collaborate with?
 - Physicians are concerned
 - CAPE
 - Ont College of Family Physicians
 - Sunnybrook – Env. Health Clinic
 - Partners: ENGOs, industry, labour
 - Need to consider social disparities
- Air, soil, water
 - What is the biggest bang
 - Cancer – used examples of fruit/vegetation
 - Discussed transportation
- Policy makers:
 - Need basic education on env. health, ie. env. & cancer
 - Is a definite report required?
 - MOH/MOE to bring forward info?
 - Need credible voice
 - Need interministerial support
 - Tobacco template exists
 - CCS planning an education date with MPs re: prevention
 - ◻ Add env. causes of cancer
 - Need to education municipal level – decisions happen at local level
- Provincial strategy on prevention in the works
- Challenge – lack of capacity within MOH for this issue
- Advocate for capacity
- Tritium:
 - Known carcinogen
 - Routine release from Canada
- Need a public discussion on the future of nuclear power
- Would like to have seen a discussion on Insight on Cancer
- Challenge: developing consensus on lists of concerns and what “we” do
- Need a societal discussion on risk/benefit
- Surveillance system:
 - Capacity issues
 - Data quality issues (QC/QA)
 - What do we measure?
 - Where do we measure (indoor/outdoor, AQ)
- Research:
 - Timing of exposure the health impacts
- Focus on an issue – becomes clearer what to measure, what to look for
- Economic challenges ◻ just transition
- Need a center (“group or entity”) to bring all this data/info together
 - Needs resources
 - Many of us have been involved for years ◻ this is the movement

- o Need a recognized voice
- Need public to advocate as well

Group 2

Note to interpret table: first column lists elements from Question 1 (i.e., RKT = research, knowledge transfer and surveill = surveillance); first row from 'N/IS' to 'Other' refer to elements from Question 2 (i.e., N/IS = networking, information sharing; A/E = awareness raising/educational activities; L/A = lobbying and advocacy; Other = other ideas for collaboration)

		N/IS	A/E	L/A	Other
RKT	Occ <input type="checkbox"/> env. methodologies	9		9	
	Broader exposure assessments	9	9	9	
	Policy evaluation	9	9	9	
	Broader outcome assessments/end pts	9	9	9	
	Increase emphasis on release/exposure, RKT	9	9	9	
	Improve KT <input type="checkbox"/> policy workers/public/health professionals	9	9	9	
Surveill	? risk communications <input type="checkbox"/> env./occ.				
	How are exposure databases used?	9			
	Childhood exposure studies	9		9	CDC
	Improve NPRI – list/thresholds		9	9	
	Improve air quality measurements – dispersion modeling	9		9	
Education	Increased use of biomarkers/personal dosages	9		9	Gage Institute
	Acknowledge what is known/not known to public – practical tips	9	9		
	Increase health professionals education	9	9	9	
	Increase children + environment exposures – prenatal exposures education	9	9		
	Air pollution, radon – vs. general approach	9		9	
Incentives	Consistent provincial messages	9	9	9	
	Eco-labeling <input type="checkbox"/> carcinogen free	9	9	9	
	Prop. 65 – California type policy		9	9	
Policy	Industrial incentives (e.g. logo) promoting substitution/elimination	9	9	9	
	Operation Health Protection an opportunity for clear right-to-know legislation/policy		9	9	
	Access/education/evaluation dimensions	9	9	9	
	Link with ATSDR		9	9	
	Need toxics reduction leg./pol./supp. Structures		9	9	
	EHB in MOHLTC an opportunity?			9	
	Increase policy links between MOE/MOL/MOHLTC	9	9	9	
Municipal leg./pol. opportunities		9	9		

Group 3

- Initiatives we have discussed are a decade old – EBR
- Need for leadership
- Be strategic – surgical – focus on reduction strategy

Q1: (e) is priority

- How to link environment and health
- Law with targets for reductions
- Risk vs. injury
- Reg'ns set standards? Total loadings
- Architecture of programs
- Govt statement of commitment to end exposure to carcinogens (env. & occ.) by progressively reducing their generation, use, emission & storage
- Education: RTK, labeling
- Regulation of carcinogenic substances
- Institutions:
 - (a) within govt. interministerial & led by Medical Officer of Health
 - (b) advocacy coalition:
 - province wide voice – health, env., labour, etc. – similar to Clean Air Alliance, OCAT, Acid Rain Coalition
 - (c) support and leadership from CCO:
 - use CCO's regional networks to tap community concerns & knowledge
 - CCO to network with funders of both cancer & env. organizations – develop capacity

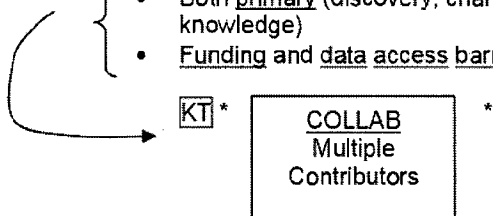
Q2: Provide an opportunity for interested groups to come together, learn about the issue & share their expertise

Group 4

#1: Opportunities for Collaboration

1. Research - * needed *

- Now limited research capacity in Ontario
- Both primary (discovery, characterization) and secondary (interpret existing knowledge)
- Funding and data access barriers



Network

2. Surveillance & Databases (re: prev of env. carc'gens)

- Define focus byproducts of human activity
- Use info that already exists
 - Do linkages/GIS studies
 - Learn from experience + express uncertainties (e.g. enhanced cancer surveillance)
- Integrative/collaborative approach to planning, decision making, research (beyond traditional/academic model)

- Capacity ↑

3. Education & Awareness

- From multiple groups for multiple audiences (key messages)/encourage range of perspectives and uncertainties
- ↑ access to key info & sources (risks + outcomes)
- Both – shared messages
 - different messages
- Identify successes (pesticide, tobacco)
- ↑ access to industry + public to support “healthy” choices

4. Incentives

- Mandatory review of hazardous products
- Public release of emissions data (& flogging of CEOs)
- Taxation
- Maybe – low interest loans for small bus. capital expenditures e.g. drycleaners
- Business “consulting” assistance (engineering, financial, etc.)
- Success stories, business enviro. heroes

5. Policy

- Prioritize prevention of cancer from enviro. sources
- Build on successes, e.g. tobacco strategy
- Start locally (municipalities)
- Targets (2020 etc.)

#2: Working Together

- Identify common ground
- Key messages, shared positioning
- Accept/embrace our differences
- Determine how to continue/enhance today’s collaboration