

**Environmental Standard Setting to Protect
Children's Health
Issues for Ontario's Children**

why children's health is at particular risk from environmental contamination and which environmental contaminants are of concern);

- ▶ to assess whether current standards are adequate to protect children and if not, which standards are of concern;
- ▶ to develop strategies and tactics for protecting children, including:
 - developing tactics for limiting children's exposure to contaminants of concern which focus on the pathways by which children are exposed;
 - working to encourage better standard setting and enforcement regimes;
 - addressing gaps in information about health dangers of environmental contaminants; and
 - explore engaging in specific local (or wider) activities to reduce the generation of harmful contaminants.

The project will be undertaken by a team of researchers from both organizations with the assistance of an expert advisory committee. It is expected that both interim and final reports would be produced.

Background

The Laidlaw Foundation Initiative

The Laidlaw Foundation has embarked on a new initiative entitled "Environmental Contaminants and Children's Health". This is an ambitious multi-year undertaking with four programme goals aimed at fostering sustainability and improving community environmental health. These goals entail:

- Identifying and fostering community networks and organizations which will set community priorities and strategies for healthy sustainable communities.
- Developing a coordinated strategy for linking community action to government and corporate policy initiatives aimed at reducing environmental contaminants in communities.
- Imbedding the ecological perspective in the everyday understanding of social and economic systems, with a view to influencing behaviour and policymaking in the social, economic and cultural domains.
- Achieving a better understanding of the relationship between environmental contaminants and children's health and translating and disseminating this information to health professionals, policy-makers and citizens.

The Laidlaw Initiative identifies key activities and programme components which will seek to achieve these goals over the next few years. Amongst these are:

- Developing, "translating" and communicating critical information on the relationship between children's health and environmental contaminants to communities and policy makers;
- Examining child-based standards via a large multi-tiered, multi-phased project, involving legal and policy analysis, medical expertise, communications and lobbying;
- Building cross sectoral and cross discipline alliances to further action and information development and dissemination.

What Is Required

The objective of the present proposal is to help lay a sound foundation for the Laidlaw Initiative's activities over the next several years. The proposal is founded on the understanding that initial work is required to provide an informational basis for these activities, to identify gaps requiring

further work and to begin to forge seminal working relationships amongst key groups. It has been developed with the following perspective in mind:

1. To be effective, community strategies for protecting children must be based on a clear understanding of the environmental threats to children's health. Communities should know:

- (a) why children's health is at particular risk from environmental contamination;
- (b) which environmental contaminants are of concern;
- (c) whether current standards are adequate to protect children; if not, which standards are problematic; and
- (d) whether current information on the environmental prevalence of contaminants of concern is adequate to judge if children are adequately protected by current standard setting and enforcement.

2. This information can help communities and families develop strategies and tactics for protecting their children. These strategies and tactics should:

- (a) Deal directly with the gaps, or potential gaps, in protection resulting from inadequate standards and/or enforcement. The response could include a set of tactics for limiting children's exposure to contaminants of concern which focus on the pathways by which children are exposed. These tactics would include specific actions to limit children's exposure to potentially harmful:
 - i) food, including breast milk, baby food and formula
 - ii) drinking water
 - iii) air
 - iv) soil (direct ingestion and via food from family gardens)
 - v) other (such as consumer products, e.g. toys)
- (b) Address issues in standard setting by working to encourage a better standard setting and enforcement regime, including effective pressure for:
 - i) better standards, including better standard-setting procedures (and the development of standards where none exist);
 - ii) the resources necessary to provide better overall enforcement;
 - iii) better research to narrow the gaps in knowledge about environmental impacts on children's health
- (c) Address gaps in information about the health dangers of environmental contaminants, sources and pathways and the environmental prevalence of these contaminants in communities by:
 - i) taking preventive approaches to protect community health; and
 - ii) effectively advocating for additional research and monitoring

- (d) Explore these groups and organizations engaging in specific local (or wider) activities to reduce the generation of harmful contaminants via collaborative efforts with industry and others.

Relevant Work to Date

Fortunately the task of addressing these information requirements can draw on the considerable research and policy related activity undertaken in Canada and elsewhere. While large gaps remain in our understanding of how environmental contaminants affect children's health, significant research has been completed and substantial recent efforts have gone to summarizing knowledge in the area. Europe and the United States are responsible for several studies and symposia.¹

In Canada, the Ontario Public Health Association co-hosted a symposium "Are Our Children Safe?" in 1996, the Canadian Institute for Children's Health (CICH) hosted a 1997 national symposium "What on Earth", and CICH and Pollution Probe together convened "The Air Children Breathe" earlier this year. CICH commissioned a literature review of Canadian and international research on environmental contaminants and children's health, the second draft of which was made available last month.² Greenpeace has undertaken independent testing of contaminant levels in certain toys and have reported on those results.

Along with information gathering and synthesis, substantial efforts have begun to address the inadequacy of existing environmental standards. In the United States, organizations such as the Children's Environmental Health Network have succeeded in prodding government into adopting a policy commitment to environmental standard setting which recognizes the importance of children's health. The Environmental Protection Agency (EPA) announced a national policy in October 1995, committing the agency to take health impacts on children and infants into explicit account when conducting environmental risk assessments. This commitment was affirmed by the administration in the spring of 1997 when President Clinton signed an Executive Order entitled Protection Of Children From Environmental Health Risks And Safety Risks. It directs the U.S.

¹ There have been several works summarizing scientific findings which include: Commission of the European Communities, Principles for Evaluating Health Risks from Chemicals During Infancy and Early Childhood: The Need for a Special Approach Geneva. United Nations Environment Programme, 1986; National Research Council, Pesticides in the Diets of Infants and Children, National Academic Press, Washington 1993; United States Environmental Protection Agency, Environmental Health Threats to Children, Washington, 1996 Guzelian P.S., Henry C.J., Olin S.S., (Eds.) Similarities and Differences Between Children and Adults. Implications for Risk Assessment, ILSI Press, Washington 1992. The most recent of relevant international symposia are "Bridging the Gap: New Needs and Perspectives for Environmental Information" held in London U.K. in June 1998 and the August 1998 "1st Internal Conference on Children's Health and the Environment" to be held in Amsterdam.

² Harmsen, E., Avard, D., Chance G. and Underwood K. Environmental Contaminants and the Implications for Child Health: Literature Review, 2nd Draft. Prepared for the Canadian Institute of Child Health, May 1998. See also the Ontario Medical Association's recent report summarizing findings on health effects associated ground level ozone, which specifically addresses impacts on children: OMA Ground Level Ozone Position Paper, May 1998.

federal government to "ensure that its policies, programs, activities and standards address disproportionate risks to children that result from environmental health risks or safety risks."

EPA issued a major report in 1996 "Environmental Health Threats to Children." The report acknowledges the unique vulnerability of children to environmental hazards. It explicitly commits the agency to a programme of standards reform "to ensure that all standards EPA sets are protective enough to address the potentially heightened risks faced by children -- so as to prevent environmental health risks wherever possible -- and that the most significant current standards be re-evaluated as we learn more." In keeping with this approach the *Food Quality Protection Act* of 1996 directs EPA to assure that allowable pesticide residue levels are set to protect children.

Part of the programme set out in Environmental Health Threats to Children includes a promise to revise existing standards. EPA will "select -- with public input and scientific peer review -- five of its most significant public health and environmental standards to re-issue on an expedited basis". EPA is currently engaged in this process and has invited public comment on the approach to be taken to ensure its satisfactory completion.

The process of standards revision taking place in the U.S. is one to which the Canadian government and all other members of G8 expressed support when they signed the 1997 Declaration of the Environment Leaders of the Eight on Children's Environmental Health. It states "We pledge to establish national policies that take into account the specific exposure pathways and dose-response characteristics of children when conducting environmental risk assessments and setting protective standards."

Purposes

The present proposal is designed to take advantage of this knowledge, activity and commitment to accomplish two primary purposes:

1. Deepen the understanding of the relationship between children's health and environmental contaminants in Ontario, with special emphasis on implications for standard-setting policy.
2. Describe and critically assess the role of environmental standard setting in protecting Ontario's children.

Approach/Methods

The study will be a cooperative effort of the Ontario College of Family Physicians (Environment Committee) and the Canadian Environmental Law Association. Overall project direction and methodology will be established together and project progress will be jointly monitored. Each group will take responsibility for its particular work area and group representatives will provide

project management in each area. These project managers will sit on the project's steering committee, along with representatives from the Laidlaw Foundation.

In terms of an overall methodology, the following represents the broad methodological approach that will be undertaken. A detailed summary of explicit steps within these methodological sections is described in the section "Tasks" below.

Literature review: A thorough investigation of published sources (primary research and secondary literature), as well as unpublished (including conference proceedings, reports and data from research agencies, government ministries and public interest groups, among others) and electronic sources (web pages for a variety of agencies) in the following subject areas; pediatric environmental health, environmental contaminants of concern, health effects of environmental contaminants, specific diseases and contaminants of concern, government legislation and regulations regarding environmental contaminants, standard setting approaches and environmental monitoring data. All basic reference data (citations, abstract and/or notes) will be entered into a common bibliographic database for access by all team members.

Key informant interviews: Interviews of key informants will draw on existing expertise from researchers and field workers in medicine, pediatrics, public health, research agencies, government departments, nongovernmental organizations, public interest groups and community associations. Another aim of the key informant interviews will be to relate the information from the literature review above to the Ontario context, specifically, to document the vulnerability of Ontario's children and the adequacy of current standards and policies for protection of children in this province. Interviews may be scheduled while the literature reviews are in progress. Preliminary lists of relevant key informants have been identified (see separate tasks below), but it is expected other informants will come to light as we proceed with the literature reviews. Interviews will be conducted in person where ever possible, or by phone for informants outside of the Southern Ontario region.

Analysis: Following the literature review and key informant interviews, the team will undertake a critical review, synthesis and integration of the information available to date, incorporating opinions of and information garnered from the key informants. Among the products of this analysis we anticipate will be: i) summaries that highlight the gaps in knowledge; ii) recommendations for strategies to use this information and to enhance existing knowledge, such as proposed improvements to legislation, areas for further research and key issues for public education; iii) identification, through case studies, of specific communities in Ontario that highlight the effects on child health of exposures related to inadequate or nonexistent legislation and standards.

Report Production: Finally, drafting of a summary document stemming from the analysis above will again see integration of the work from the two groups. The report will be produced in two stages (see schedule of milestones below): An initial, interim report will form the basis of discussion in a proposed peer review workshop (see below). Subsequent to the

The Joyce Foundation Grant of \$14,118.00 were for a review of government progress under the Great Lakes Water Quality Agreement. This review entitled "Treading Water" was released on the 25th anniversary of the signing of the Agreement.

The Walter Gordon Foundation Grant of \$6,500.00 was for a sub contract to CELA's International Program for the development of a National Mining Strategy.

The Three Guineas Foundation Grant was to carry out research on the patenting of life forms. This work was subcontracted to CELA's International Program.

This year grants have been received from:

The Law Foundation over three years for library outreach and program improvements.

The Trillium Foundation to enable the library catalogue to be put on CD Rom to enable access from outside our offices.

The Laidlaw Foundation for a Study of Canadian Standard Setting and Childrens' Health Protection.(sub-contracted to CELA).

A Grant from the ELJB Foundation, sub contracted to CELA allowed a Health and Environment Network to be developed with Partners the Canadian Association of Physicians for the Environment which focussed on the review of the *The Canadian Environmental Protection Act*.