

Commission for Environmental Cooperation (CEC) of North America



Cooperative Agenda for Children's Health and the
Environment in North America

DRAFT

for public consultation

22 February 2002

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A Note to the Reader...

The following is an overview of the purpose of this document and guidance on how you can become involved in shaping the cooperative work of the CEC on children's health and the environment in North America.

What is the purpose of this document? This draft document presents an outline of the Children's Environmental Health Cooperative Agenda. It has been prepared by the CEC's trilateral Children's Environmental Health (CEH) Team¹ based on ideas generated during a governmental workshop held in Montreal, Canada on 26-27 November 2001² and taking into account ongoing and planned work under the CEC's Pollutants and Health Program. Once finalized, the Cooperative Agenda will serve as the blueprint for trilateral action over the next 2-3 years for advancing the protection of North American children from environmental threats to their health.

The development of a cooperative agenda was called for by the CEC Council in their Resolution 00-10 on Children's Health and the Environment, adopted in June 2000. The Council is the governing body of the CEC, and is comprised of the top environmental officials of Canada, Mexico and the United States. As a starting point, the Council called for an initial focus on asthma and respiratory disease and the effects of lead and other toxic substances (including pesticides). These priorities are reflected in this document.

The Cooperative Agenda is intended to be a 'living' document and, as such, it will be periodically revised and updated to reflect progress achieved, emerging issues and priorities, and the contributions and involvement of interested organizations and partners throughout North America.

We want to hear from you! The CEC invites you to provide your ideas and suggestions for improvement on this draft version of the Cooperative Agenda. Following are some questions to consider when reviewing the draft:

¹ The CEH Team is comprised of environmental and health officials from the three North American countries who are working together to guide the development and implementation of the CEC's initiative on children's health and the environment.

² The report of the workshop is available on the CEC website at <www.cec.org> or upon request from the CEC Secretariat.

- Is the document a useful framework for guiding the CEC's children's environmental health initiative and the collaborative work of the three countries in this area?
- Will the proposed actions contribute to addressing the priority issues identified in Council Resolution 00-10?
- Are there actions that you believe are particularly important? Less important? Are there actions that you think could be improved or strengthened and, if so, how?
- Are there other issues or actions that you think should be considered for inclusion? What would be the added benefit of the three countries working together on such issues/actions?
- Are you (or your organization) interested in becoming more directly involved in aspects of the Cooperative Agenda and, if so, in what ways?

Each of the activities outlined in the following pages is marked as "ongoing", "planned" or "under consideration." The first two categories indicate that the activity is in the CEC work plan agreed upon by the three parties. While your input is welcomed and encouraged on all activities, we especially encourage you to provide guidance and feedback on the proposed projects that are under consideration.

Children's environmental health is an issue that affects and involves all sectors of civil society, including parents, health care professionals, teachers, CEOs, industrial managers, scientists, community organizers, municipal governments and kids themselves --to name a few. While governments have a responsibility to act, it is also clear that there is a tremendous wealth of energy, knowledge and commitment outside of government that must be brought to bear to solve these and other issues of common concern in North America. Thus, as you review the draft agenda, we encourage you to consider how your organization might become involved. It is only with the active involvement and support of interested groups and individuals throughout the continent that this Cooperative Agenda for action will reach its full potential.

How can you provide input? This draft document will be discussed during a joint public meeting of the CEC's Joint Public Advisory Committee (JPAC) and the Expert Advisory Board on Children's Health and Environment in North America, to be held in Mexico City on 7 March 2002. More information on this meeting is available on the CEC website at <www.cec.org> or by contacting the CEC Secretariat.

You may also provide your comments and suggestions in writing. Please send your comments (including your name, organization and contact information) by **22 March 2002** to:

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Please note that all comments received will be made publicly available.

Next steps: Following the public meeting and the close of the public comment period, the document will be revised and finalized in advance of the annual meeting of the CEC Council in Ottawa, Canada in June 2002. It will be available in English, French and Spanish in hard copy and on the CEC website.

The CEC wishes to thank you for your interest and involvement in this initiative. We look forward to hearing from you.

Introduction

Children hold a special place in our families, our communities and in our societies. Children's bodies undergo rapid development, which increases their vulnerability to many environmental threats. Compared to adults, they take in more food, air and water per kilogram of body weight, which often increases their risk, relative to an adult, of adverse impacts of contaminants that may be present. Because children spend their time in different "micro-environments" than adults — on or near the floor, for example, or playing in the soil — they face a different set of exposures than an adult living in the same home or neighborhood. All of these factors underscore the fact that "children are not little adults."

Environmental regulations, tolerance levels for contaminants in food, and other public health protection measures often have been designed based on information about the average adult male, and with little information available about the potential exposures and risks faced by children. Gradually this situation is changing as scientists learn more about children's particular vulnerabilities to environmental contaminants, and as governments and other responsible actors shift their approaches to start taking the specific characteristics of children into account.

In North America, the impact of environmental hazards on children's health is receiving increasing attention among scientists, policymakers and the public alike. Ensuring the protection of children from environmental threats — devising policies and preventive measures that take their unique circumstances and susceptibilities into account — is the aim of the emerging field of children's environmental health (CEH).

The CEC Council Resolutions on Children's Health and the Environment

In its Resolution 00-10 on Children's Health and the Environment (See appendix), adopted in June 2000, the CEC Council, comprised of the top environmental officials in the three countries, recognized that there is a growing body of scientific evidence that children are particularly vulnerable to many environmental contaminants. They committed to "working together as partners to develop a cooperative agenda to protect children from environmental threats with the overall objective of reducing human-made pressures on children's health."

As a starting point, Council called for a focus on specific health outcomes such as asthma and other respiratory diseases, the effects of lead including lead poisoning, and the effects of exposure to other toxic substances. They also called for activities to increase parents' and the public's awareness and education about environmental threats to children's health and ways of preventing exposures, and affirmed that parents have a right to know about the presence of potentially harmful substances that may affect the health of their children.

At the June 2001 Council Session, the CEC Council reiterated its commitment to working together to address environmental threats to children's health, and indicated its interest in building on the children's environmental health initiative in

order to address environmental threats such as pesticide exposure to the health of other vulnerable groups.

The Expert Advisory Board and the CEH Team

The Council Resolution also called for the formation of an Expert Advisory Board comprised of three highly qualified individuals from each of the countries to provide advice to Council on matters of children's health and the environment. It was convened in October 2001 following the issuance of Council Resolution 01-04 in which the ministers adopted terms of reference for the Board. The Board held its first meeting in November 2001 in Montreal. In March 2002, the Expert Advisory Board and the CEC's Joint Public Advisory Committee (JPAC) will hold a public meeting to discuss and obtain public input on proposed directions for the CEC's children's environmental health initiative.

In addition, a working level Trilateral Children's Environmental Health (CEH) Team, comprised of governmental officials from both health and environment departments, have been formed to advance implementation of Council Resolution 00-10.

Actions to Date

Recognizing the need for greater coordination and cooperation to protect children from environmental threats in North America, in June 1999 the NACEC Council announced a special initiative to explore opportunities for the CEC involvement in this area. The Symposium on Children's Health and the Environment in North America, held on 10 May 2000 in Toronto, and the government meeting on 11 May 2000 were important first steps in the process of identifying a common agenda for action among the three countries. The outcomes of the symposium and government meeting provided important groundwork for Council Resolution 00-10 on Children's Health and the Environment, which was adopted by the CEC Council during its session in Dallas, Texas, in June 2000.

In 2000-01 the CEH Team coordinated the compilation of inventories of national, bilateral and trilateral activities related to children's environmental health as a basis for identifying gaps and opportunities for collaboration. The CEH project also provided support for the organization of a successful national workshop on children's health and the environment held in Mexico in June 2001. The workshop, which was jointly convened by SEMARNAT and the Ministry of Health, set the groundwork for a national children's environmental health agenda in Mexico. Proceedings from this workshop can be found at the website of the Mexican Ministry of Health (<http://www.ssa.gob.mx>).

In keeping with the Council resolution, the CEH Team organized a trilateral workshop for scientific experts and other officials from the three governments in November 2001 in Montreal. The workshop objectives were to identify the opportunities for collaboration among the three countries to address CEH issues with a view to developing a longer-term strategy to guide the CEC's trilateral work on children's environmental health. The ideas generated during the workshop would then feed into the development of the trilateral Cooperative Agenda for Children's Health and the Environment in North America.

The Montreal workshop generated a wide a range of ideas and proposed activities, far more than could be accommodated in the Cooperative Agenda. The

CEH Team selected projects for inclusion in the draft Cooperative Agenda based on: relevance to the ongoing work of the CEC; availability of resources from the existing CEC budget or other identified sources; the potential for trilateral work to provide added value, and the need to fulfill the commitments made by the Council in their Resolutions 00-10 and 01-05. Some of the activities have already been initiated. The report of the trilateral workshop, which summarizes the full range of topics and ideas discussed, is available from the CEC.

Building Partnerships for Children's Environmental Health

Ensuring a safe environment for children requires action at all levels: locally, nationally, regionally, and globally. Contaminants can be transported long distances by wind and water, or in goods traded in commerce. Any one country's efforts alone cannot solve the problems: coordinated solutions at the regional and global levels are needed.

Solutions to children's environmental health concerns require the participation of people involved in different areas: environmental protection, health care and promotion, education, family support, etc. New partnerships must be formed between health and environment agencies, and among government at all levels, communities, the private sector, public interest groups, researchers, health care providers, parents and educators.

One example is the NAFTA Technical Working Group (TWG) on Pesticides, which is a venue for regional cooperation in the three countries. Among the aims of the NAFTA TWG is to ensure the safety of pest control products throughout North America. The US and Canadian partners in the NAFTA TWG are taking steps to factor the unique characteristics of children into both the evaluation of new pest control products and the re-evaluation of older pesticide products. For registration and risk assessment processes, both the US and Canada do incorporate children's exposure patterns. The U.S. is also working with Mexico in strengthening programs to protect agricultural workers and rural communities from the potential negative effects from pesticides.

Given its unique position as a regional body focused on environmental issues, the CEC can play an important role in facilitating partnerships to address children's health and the environment on a North American scale. The CEC provides a forum in which the diverse range of actors can convene, exchange information and experiences, share tools and form partnerships. It allows these actors to see their regional and domestic activities within a broader, North American framework that reflects common goals. By providing such a meeting place, the CEC enables those involved in CEH to build upon—rather than attempt to duplicate—the work of others.

The Purpose of the Cooperative Agenda

Council Resolution 00-10 calls for the development of a CEC cooperative agenda for children's environmental health, with an initial focus on asthma and other respiratory diseases, the effects of lead, and the effects of exposure to other toxic substances. The Cooperative Agenda is intended to serve as the blueprint for trilateral action over the next 2-3 years to advance the protection of North American children from environmental threats to their health. It is a living document that will be periodically revised and updated to reflect the progress

achieved, emerging issues and priorities, and the contributions and involvement of interested organizations and partners throughout North America.

More specifically, the Cooperative Agenda:

- Outlines ongoing or planned projects on CEH for the short/medium term
- Identifies projects under consideration for future implementation
- Proposes for each project a rationale, objectives, actions, schedule, budget and expected results
- Identifies opportunities for partnerships with stakeholders
- Encourage organizations involved in CEH to identify ways in which they might be able to participate in the work of the CEC and the parties.

This version is a draft for public review and consultation, with many actions still under consideration. The final version will be prepared taking into account stakeholders' views and will include only a selected number of the proposed actions.

Elements and Activities of the Cooperative Agenda

1. Asthma and Respiratory Disease

Asthma and respiratory disease affect millions of children in North America and in some regions have reached epidemic proportion. Council Resolution 00-10 called for collaborative action among the three countries to address asthma and other respiratory diseases.

1.1 Assessing the Impact of Diesel Exhaust at Congested Border Crossings

[ongoing]

Rationale: In the context of increasing social and economic ties among the NAFTA partners, one of the challenges that arise is the impact of increased vehicle traffic along trade and transportation corridors, particularly at congested border crossings. There is a need for a better understanding of the health effects resulting from exposure to air pollution attributed to border traffic and vehicle diesel emissions along these corridors. The positive association between levels of environmental particle matter and ozone concentrations with the number of emergency room visits for exacerbation of childhood asthma, even at concentrations below US and Mexican health standards, supports the need for further research of susceptible populations.

Objective: Assess the impact of diesel exhaust and other particulates on the severity of asthma, allergies, and respiratory health among susceptible and healthy children or other sensitive subpopulations residing along congested NAFTA trade corridors.

What: Develop a methodology to assess population exposures to the diesel exhaust component of the ambient air pollution along congested NAFTA trade corridors and apply it to test three hypotheses:

- Exposure to diesel exhaust at environmental concentrations is associated with increased respiratory events and inflammatory and allergic reactions in asthmatic children or other sensitive subpopulations.
- The association of diesel exposure with health outcomes is stronger in asthmatic children than in healthy children.
- Diesel exhaust particles are more strongly associated with respiratory health outcomes than with particles emitted by gasoline vehicles.

The project will entail the following steps:

- 1) Develop a standard methodology to assess diesel exhaust exposure of children in Mexico living along a congested trade route crossing the Mexico/US border
- 2) Determine the content of diesel exhaust in particulates in the corridor
- 3) Investigate the effects of particulate composition on child health outcomes
- 4) Conduct a diesel exhaust exposure study along a major trade artery associated with a Canada/US border crossing using a comparable methodology.

Type of activity: Knowledge development; capacity building

Who: Coordinated by CEC Air Quality Project. Initial participants include officials from the General Directorate of Environmental Health in the Mexico Ministry of Health, SEMARNAT, the California Air Resources Board, State of New York Department of Environmental Conservation, Ontario Ministry of the Environment, Northeast States for Coordinated Air Use Management, Environment Canada, Health Canada and the US EPA. Also involved will be members of the public health research community.

When: 2002-2004

Funding: From the CEC : US\$46,740 for 2002

Expected Results: A methodology that is transferable to future studies not only along major trade corridors across North America, but to other cities and industrial areas with diesel exhaust-related air quality problems.

1.2 Working with Pilot Communities on Asthma Prevention *[under consideration]*

Rationale: Asthma is a growing environmental health concern that many communities across North America are facing. However, each community struggles with different issues and needs depending on geographic location, economic and social resources, and infrastructure. Many resources for asthma education exist, however, no coordinated effort has been made to organize these resources into a menu or kit, from which communities could select those items which best suit their needs.

Objective: Empower communities in Mexico, Canada and the United States to reduce the incidences of asthma by adapting existing educational materials and services to meet specific, regional/local needs.

What: Identify 3-4 communities to work with as pilot communities using existing asthma programs and services. This would entail the following steps:

- 1) Conduct a needs assessment in all 3-4 border communities to identify the specific needs of each of those communities for reducing incidences of asthma. For example, to what extent is there a problem with outdoor pollution resulting from diesel or factories, deteriorated school buildings, lack of access to health care, etc.
- 2) Provide support to these communities to establish a coordinated approach to managing asthma through infrastructure development and implementation of programs. A list of programs and services to address specific needs identified by each community will be provided. (e.g. Indoor Air Quality (IAQ) Tools for Schools, Smoke-Free Home Pledge, Open Airways for Schools Education Program, Ozone Action Days Information and Index, etc. In addition, each community will launch a multi-pronged asthma education campaign (TV, print media).
- 3) Launch the pilot communities with media events featuring high-ranking government officials and/or other public figures to leverage additional media coverage.
- 4) Track outcomes and results in each of the pilot communities and develop a report that other communities can use to replicate this initiative.

Type of activity: Capacity building; public education

Who: The program would be organized jointly by the CEC and a steering group of representatives from the three countries. At the community level, project implementers and participants would include government officials, interested groups and members of the public.

When: Commencing in 2003

Funding: To be determined in planning process

Expected Results: Improved knowledge of asthma prevention in the pilot communities. Development of an approach that could be replicated by other interested communities.

1.3 Developing a Framework for Asthma Surveillance *[under consideration]*

Rationale: A sound understanding of the incidence of asthma and its impacts on various socio-economic groups and geographic regions is key to sound policy making to prevent and reduce asthma among North America's children. Currently, the surveillance data for asthma are piecemeal and not collected in comparable ways between and within the three countries.

Objective: Improve asthma surveillance systems to enhance the understanding of asthma in North America

What: Develop a common methodology for conducting periodic surveys taking into account risk factors specific to each country. The individual countries would conduct the surveys.

Type of activity: Knowledge development, capacity building

Who: CEH Team and partners

When Commencing 2003

Funding: To be determined

Expected Results: Data comparability among the three countries; improved information for decision-making.

2. Effects of Lead

Lead is a heavy metal that is toxic to many body systems, particularly the nervous system. For some of these effects no safe level of lead exposure has been found. The unborn and young children are at particular risk due to high lead absorption coupled with rapidly developing systems. Council Resolution 00-10 identified the effects of lead including lead poisoning as one of the priorities for collaborative action among the three parties.

2.1 Assisting Cottage Industries to Reduce/Eliminate the Use of Lead *[planned]*

Rationale: The use of lead in certain micro- cottage industries in Mexico has been identified as a priority issue due to concerns about local environmental contamination as well as potential exposures via goods traded in commerce. Lead exposure is particularly harmful to children. There is an opportunity to build on ongoing work on this issue under the auspices of the OECD as well as other agencies.

Objective: To accelerate the adoption of technologies within cottage industries that will reduce or eliminate the use of lead.

What: A program to assist cottage facilities in selected industries (e.g., pottery/ceramics, battery recycling, lead shot and sinkers) to reduce/avoid the use of lead through implementation of pollution prevention measures, as a means of reducing potential lead exposures among children via the local environment and/or products. It will entail the following steps:

- 1) Prepare an inventory of cottage industries that work with lead
- 2) Work with 2-3 affected industries to develop and implement incentives and solutions to reduce/avoid the use of lead
- 3) Evaluate the pilots and disseminate results to other industries and the public
- 4) Create program based on the project outcomes

Type of activity: Capacity building, technology transfer, public education

Who: Coordinated by CEC with guidance and technical support from an informal steering committee of government officials from the three countries and other partners. The implementation of the pilot projects is to be carried out in collaboration with local partners.

When: 2002-2004

Funding: Startup funding from CEC budget: US\$21,810 for 2002, further funding to be determined

Expected Results: Reduced lead exposures, improved technologies/processes and potential cost savings for participating industries, and improved product stewardship initiatives. A pilot-tested approach that can be replicated with other industries and/or with other environmental health threats (e.g. dioxins, mercury). The creation of partnerships with key organizations and identification of vulnerable population groups.

2.2 Gather and Exchange Data on Blood Lead Levels *[under consideration]*

Rationale: Information on blood lead levels provides the ability to track the effectiveness of control measures. There is currently a lack of up-to-date blood lead monitoring data for parts of North America.

Objective: Gather and share national surveillance data for blood lead levels in children to evaluate progress in decreasing lead exposure.

What: The SMOC Monitoring and Assessment NARAP and Task is elaborating a project on monitoring human blood for selected persistent organic and inorganic contaminants, potentially including lead, that will focus in particular on women of child bearing age. This would provide insights into fetus and infant exposure to these same contaminants.

Type of activity: Knowledge development, capacity building

Who: The CEH Team, SMOC, other partners

When: Commencing in 2003

Funding: To be determined

Expected Results: Improved information on blood lead levels enabling better decision-making

3. Effects of Exposure to Toxic Substances

Exposures to toxic substances, including pesticides, have been linked to causes of childhood death, illness and hospitalization. Council Resolution 00-10 directed the CEC and its member countries to focus on the effects of exposure to toxic substances as a priority for cooperative action to protect children from environmental threats.

3.1 Integrating CEH considerations into the Sound Management of Chemicals (SMOC) Program *[ongoing]*

Rationale: The CEC's Sound Management of Chemicals (SMOC) program addresses chemicals of common concern, many of which are of particular concern to children's health. The North American Regional Action Plans (NARAPs) developed through SMOC provide an important vehicle for preventing, reducing or eliminating the sources and potential exposures to these priority substances. Further effort is needed to capitalize on the important work of SMOC

as a means of better addressing children's environmental health concerns associated with toxic chemicals.

Objective: Ensure that SMOC activities, including the substance selection process and the North American Regional Action Plans on priority substances as well as the NARAP on monitoring and assessment, take exposures and risks to children into consideration.

What: The CEH Team will follow and provide input into SMOC plans and activities as they develop, with a view to ensuring that children's environmental health concerns are taken into account. Establish means for periodic communication between the SMOC Working Group and its task forces and the CEH Team.

Type of activity: partnerships

Who: CEH Team and SMOC Working Group

When: 2002, ongoing

Funding: No additional resources required

Expected Results: Trilateral actions that reduce exposures/risks to children associated with priority substances; improved monitoring and surveillance data of relevance to children's environmental health.

3.2 Special *Taking Stock* Report on Toxics and Children's Environmental Health [ongoing]

Rationale: The *Taking Stock* report on pollutant releases and transfers from industrial sources is a well established CEC publication that gets wide distribution. The special report on toxics and CEH will provide information on CEH issues to an audience concerned about environmental policy in general and toxics in particular.

Objective: To increase the awareness of CEH issues among the interested public and stakeholder groups such as industry, community groups, environmental organizations, government officials, academics and others.

What: Publication of a special feature report on toxics and children's environmental health, as part of the *Taking Stock* series.

Who: CEC Secretariat

When: 2002

Funding: US\$21,810 (CEC budget 2001-2002)

Expected Results: Greater profile of CEH with an audience interested in environmental policy.

4. Risk Assessment and Economic Valuation

Decision-making aimed at protecting children's environmental health is an evolving area that incorporates a range of processes and disciplines, from risk assessment to the analysis of economic and social factors, and including stakeholder involvement and communication of information to the public. Methods for decision-making, such as risk assessment, are evolving to better address the

specific characteristics of children in order to ensure that children are fully taken into account in regulatory decision-making and public policy. In addition to risk assessment, integration of economic valuation into decision-making for CEH is also needed..

To assist governments in keeping abreast of these developments, the CEC has a role in facilitating exchange of information, the exploration of new directions, the building capacity and strengthening of human resources.

4.1 Trilateral Workshop on Risk Assessment *[under consideration]*

Rationale: A common understanding of risk assessment terms and approaches—among the three countries, between environment and health departments, and between those dealing with toxic chemicals and pesticides—is a prerequisite for effective collaboration and sharing of information and results. Enhanced information exchange between health and environment can also foster mutually beneficial improvements in risk assessment approaches, particularly with respect to methods for incorporating children’s health concerns and vulnerabilities into risk assessment.

A common understanding of risk assessment will also facilitate the sharing of work, expertise, information and ideas, while maintaining the capacity and flexibility of governments to take their own decisions based on the analyses and in light of national/local circumstances.

Objectives: (1) To facilitate a common understanding of risk assessment methodologies, principles, terms and concepts. (2) To help identify mechanisms for incorporating existing data often gathered in health research studies (e.g. epidemiological surveillance and biomonitoring data) that may not currently be used in regulatory risk assessment processes. (3) To identify areas where governments can benefit from the sharing of work, expertise, information and ideas.

What: A trilateral workshop to share principles and methodologies for conducting risk assessments for toxic chemicals and pesticides, and how they address children’s health.

Type of activity: Capacity building, knowledge development

Who: Organized jointly by CEC and the NAFTA Technical Working Group on Pesticides (TWG). Participants would be from governments and stakeholders groups

When: Fall 2002 (tentative)

Funding: US\$3,120 available in CEC budget for initial work. Workshop funding to be determined

Expected Results: Common understanding risk assessment methodologies and concepts that address chemical/pesticide risks to children’s health and the identification of areas for collaboration

4.2 Increasing the Supply of Trained CEH Risk Assessors *[under consideration]*

Rationale: There is currently a shortage of people with training in children’s environmental health risk assessment, limiting the capacity of governments to

assess risks to children posed by chemicals and pesticides.

Objective: Explore means to increase the number of people trained in CEH risk assessment

What: Phase 1: Identify a profile of skills needs for children's health risk assessment and assess means by which more people can be trained. Phase 2: Develop actions to increase the number of trained people, for example through staff exchanges, training programs at universities and the development of appropriate courses by universities and other training institutions.

Type of activity: Capacity building

Who: A trilateral working group

When: Commencing 2003

Funding: To be determined

Expected Results: Additional experts trained in risk assessment methods that take children's health risks into account

4.3 Integration of Risk Assessment and Economic Valuation *[under consideration]*

Rationale: Decision-makers are faced with the need to take into account a wide range of factors when making decisions aimed at protection public health, including children's health estimates of risk, analyses of economic benefits and costs, and a host of social factors. However, assessments of risk, economics and social factors are generally conducted independently of each other. Exploratory work is needed to demonstrate the feasibility of an integrated approach.

Objective: (1) To improve the understanding of the specific valuation of children's health by combining assessments of risk, economics and social impacts (including poverty etc). (2) To disseminate the findings of the study and share experiences, knowledge and methods.

What: Phase 1 would be a demonstration project in each of the three countries to determine how risk assessment and economic valuation could be integrated to better protect children's health. Different economic values for adults and children would be estimated in each of the three demonstration sites. The valuation of children's health would be examined with regard to selected parameters, for example lead, pesticides, and asthma. Best available valuation methods would be used. Cross-border comparisons and lessons will also be possible.

Phase 2 would be a trilateral workshop to share the information generated by the pilot projects as well as other information and experiences on the valuation of children's health by combining assessments of risk, economics and social impacts.

Type of activity: Knowledge development, capacity building

Who: One government representative from each of the three countries and CEC would plan and coordinate the projects. Each government would implement their respective project.

When: 2002-2004

Funding: Estimated budget needed for project design, planning and coordinating: US\$75,000. Available CEC budget: US\$12,460 for preparatory work in 2002

Expected Results: A simple risk/valuation tool that could help risk managers in each of the three countries to make better decision about children's health policies.

5. Strengthening the Knowledge Base for Long-Term Solutions

It is important to be able to measure children's environmental health for two reasons. First, scientific information is needed to design management strategies and policies that are protective of children, and second, scientific information is needed to assess the effectiveness of risk management strategies, once they have been implemented.

5.1 Facilitate Collaboration on Longitudinal Cohort Studies *[planned]*

Rationale: Little is known about the chemicals children are exposed to, in what combinations, at what times in their lives, and ultimately what effects those exposures will have. As a result, there is increasing interest in North America to undertake longitudinal cohort studies to track children's exposures, body burdens and health outcomes over time, from conception to adulthood.

The United States is planning the National Children's Study, a major longitudinal cohort study. Canada is attending the planning meetings and is considering a Canadian study. There is interest in extending the collaboration to include Mexico in order to have comparable/coordinated studies across NA, avoiding duplication of effort and achieving cost savings.

Objective: To facilitate collaboration among the 3 countries on the longitudinal cohort studies, including facilitating the participation of governmental officials/researchers from all three countries in planning meetings and other events related to the development of the studies.

What: Support participation of Mexico and Canada to the U.S. National Children's Study planning work.

Type of activity: knowledge development, partnership

Who: Relevant governmental representatives and researchers with coordination provided by CEC including the General Directorate of Environmental Health from the Ministry of Health in Mexico.

When: Commencing 2002

Funding: US\$8,100 for 2002 (CEC budget)

Expected Results: Trilateral collaboration on the development and implementation of such studies, with the potential for North America-wide study/studies. Long term expected result is a better understanding of children's environmental exposures and associated health impacts

5.2 A Framework for North American Indicators of CEH *[planned]*

Rationale: Indicators can play a valuable role in demonstrating the current status of an issue, raising its profile and encouraging action, and tracking progress towards stated goals. While there is some work ongoing at the national level in North America on environmental and health indicators, currently there are relatively few environmental health indicators, and even fewer that focus in particular on the health and well being of children.

Objective: To provide decision-makers and the public with periodic, understandable information on the status of key parameters related to children's health and the environment in North America as a means of measuring and promoting change.

What: The development and periodic publication of a core set of indicators on children's environmental health in North America. The project will entail the following steps:

- 1) Conduct a feasibility study to assess the comparability of existing indicators, including examples of regional, state, provincial, and municipal indicators, and the availability of relevant data in the three countries (to be completed in 2002);
- 2) Develop the framework for a core set of CEH indicators for North America through the work of a trilateral technical committee and with involvement of potential users of the indicators. The framework will identify issues to be covered and parameters to be measured (to be initiated in 2002, completed in 2003).
- 3) Compile and publish first set of indicators by (early 2004)
- 4) Periodic updating and publication of the indicators (e.g. every 2-3 years), with additional indicators added on an ongoing basis taking into account emerging priorities and availability of information and other resources.

Type of activity: Knowledge development, tracking progress

Who: Trilateral technical working group; National leads from each country, CEC, International Joint Commission Health Professionals Task Force (IJC HPTF), Pan-American Health Organization (PAHO), World Health Organization (WHO), UNICEF, United Nations Environment Program (UNEP). (partners to be confirmed)

When: Commencing 2002, publication of first set of indicators in early 2004.

Funding: CEC: US\$19,940 for 2002; existing EPA grant funds for development of inventory (part of feasibility study);

Expected Results: Periodic publication of a North American set of indicators of CEH that focus attention on and motivate action to improve CEH. Gradual improvement in the comparability of data among the three countries as a result of increased trilateral data sharing and collaboration.

5.3 Report on the Economic Impacts of Children's Environment Related Illnesses *[under consideration]*

Rationale: While actions to better protect children's health often require commitment of resources, lack of action also carries real economic costs. Providing quantitative estimates of the costs of no action can assist decision-

makers and the public to better understand the trade-offs associated with action vs. no action.

Objective: To provide decision-makers and the public with information on the economic costs associated with not addressing children's environmental health problems.

What: Publish a report on the economic impact of children's environmental health illnesses in North America. The first report could focus on children's illnesses that are associated with environmental exposure to harmful chemicals and pollutants, and/or the costs associated with childhood asthma, developmental disorders, and childhood cancer. Development of the report would rely on cost of illness estimates from each of the three governments and peer-reviewed journals as a starting point. However, some studies would need to be conducted to fill gaps where they exist.

Type of activity: Knowledge development, communication

Who: One government representative from each of the three countries, with CEC providing coordination and overseeing the development and publication of the report.

When: To be determined

Funding: To be determined

Expected Results: Report on the Economic Impacts of Children's Environmental Health Illnesses in North America, greater understanding among decision-makers and the public about tradeoffs between action and no action.

6. Public Information, Outreach and Education

There is a need to share information on risks to children's health with the public in a timely and meaningful manner, so that the public (parents, community leaders, educators, etc.) are able to take informed action. The public has a key role to play in furthering children's environmental health. Through their actions, they can reduce the use of, and the potential for exposure to, hazardous substances, thereby better protecting children's health. An informed public can also play a critical role by contributing to sound decision-making by governments, the private sector and others whose actions and decisions can affect the quality of the environment in which children live, learn and play.

6.1 Partner in the Production of a Global Video on CEH *[ongoing]*

Rationale: Worldwide, millions of children die every year because of risks in their environment that are largely preventable. Yet awareness of the scale of the problem is low and information on potential solutions is not widely disseminated. Public awareness needs to be raised at the global, regional, national, community and family levels. Collaboration among organizations that are working to promote awareness and education on environmental health issues will help to ensure broader dissemination of information and avoid duplication of effort.

Objective: To increase awareness of environmental threats affecting children worldwide and in the North American region, including strategies for prevention.

What: Contribute to the development of video documentaries and video news releases on CEH, to be broadcast through various international news agencies.

Type of activity: partnership, outreach

Who: Project coordinator: World Health Organization (WHO); video producer: Television Trust for the Environment (TVE); contributing partners: CEC and others.

When: 2001-2002

Funding: Total budget: US \$169,950; CEC contribution (2001): US\$15,000

Expected Results: Video documentaries and news clips that will be available for use at the regional, national and local levels.

6.2 Working with Health Professionals *[under consideration]*

Rationale: Health professionals are often the first people that concerned parents or community members will turn to with questions and concerns about children's environmental health. While some local/national activities are ongoing, there are limited communication mechanisms to allow health professionals across North America to exchange information and concerns, and to access the information they need to be effective conduits of information and advice to parents, caregivers, children and others.

Objective: To use existing channels to improve the flow of information on CEH between and among health professionals in the three countries. To improve the public's access to information/advice on CEH by better equipping health professionals, a key intermediary with the public, with information and knowledge of CEH issues and preventive measures.

What: Work with existing groups and networks, such as the International Joint Commission (IJC) Health Professionals Task Force (HPTF) and the Pediatric Environmental Health Specialty Units in Canada, Mexico, and the US, to identify and fill information needs and to share expertise among health professionals and professions in the three countries. Examples of possible activities include:

1) Translate training materials and CD-ROM on Environmental Health in Family Medicine produced by the IJF HPTF and organize a conference and training session for medical professionals along the Mexico-US border. The IJC HPTF will hold a similar event in April 2002 in Chicago for US and Canadian professionals.

2) Translate and broaden dissemination of the IJC HPTF newsletter "Health Effects Review". This is a brief (2-page) periodic news release on current environmental health issues.

3) Foster the development of tri-lateral networks of health professional networks/associations in the three countries, e.g. pediatricians, nurses, public health officials, potentially building on the network of Pediatric Environmental Health Specialty Units that now spans all three countries and which facilitates collaboration and information sharing.

4) Share experiences on risk communication through case studies and other strategies.

Type of activity: Capacity building, partnerships, public education

Who: CEC, in coordination with IJC HPTF, other relevant partners

When: To be determined

Funding: To be determined

Expected Results: Improved flow of information and sharing of expertise among health professionals in the three countries, with expected benefits for the public in the form of more informed advice and better access to information on CEH issues through the health care system.

6.3 Communicating CEH Issues and Concerns [ongoing]

Rationale: The CEC has a number of publications and communication initiatives that could be used to disseminate information on CEH issues to members of the interested public and stakeholder groups.

Objective: To inform the interested public and stakeholder groups in North America about issues of children's environmental health, with a priority focus on topics that relate to existing work areas of the CEC

What: Incorporation of CEH issues and information into CEC publications and communication initiatives. Inclusion of CEH articles in the *Trio* newsletter.

Who: CEC Secretariat

When: Ongoing. Articles on CEH to appear periodically in *Trio*, which is published quarterly.

Funding: No additional resources required

Expected Results: Greater profile of CEH with the audiences for CEC communications.

APPENDIX

Dallas, 13 June 2000

COUNCIL RESOLUTION 00-10

Children's Health and the Environment

THE COUNCIL:

RECOGNIZING that children are not little adults and that there is abundant scientific evidence that children are particularly vulnerable to many environmental hazards in the air they breathe, the water they drink, the food they eat and the environment in which they live, learn, and play;

ACKNOWLEDGING that prevention of exposure is the most effective means of protecting children from environmental threats;

AFFIRMING that parents have a right to know about the presence of potentially harmful substances that may affect the health of their children, and that they play an important role in protecting the health of their children;

NOTING that governments, individuals, communities, industry, and non-governmental environmental and health groups have roles to play in addressing children's health issues;

ENDORSING the ideals affirmed in the 1997 Declaration of the Environmental Leaders of the Eight on Children's Environmental Health, as well as Chapter 25 of Agenda 21 of the United Nations Conference on Environment and Development;

ALSO NOTING the 1989 United Nations Convention on the Rights of the Child;

ENCOURAGED by the record of achievement of the Commission for Environmental Cooperation (CEC) in health-related issues, including the elimination or reduction of harmful substances such as DDT, chlordane, and PCBs, and by enhancing the public's awareness and understanding of releases of pollutants to the environment;

FURTHER NOTING that Phase II of the North American Regional Action Plan (NARAP) on mercury specifically addresses the concern for women of child bearing age and children's exposure to increasing levels of mercury;

HEREBY:

COMMITTS to working together as partners to develop a cooperative agenda to protect children from environmental threats with the overall objective of reducing human-made pressures on children's health;

DECIDES to focus, as a starting point, on specific health outcomes such as asthma and other respiratory diseases, the effects of lead including lead poisoning, and the effects of exposure to other toxic substances;

AGREES to establish for a period of two years an Expert Advisory Board composed of environment and health experts selected by the Parties to advise the Council on issues concerning children's health and the environment;

DIRECTS the Secretariat of the CEC to work with the Parties to develop a CEC agenda on children's health and the environment in North America by:

- 1) Developing inventories of national, bilateral, and trilateral activities related to children's environmental health. The purpose of this activity would be to take stock of what is currently being done, assess gaps and identify opportunities for further collaboration on children's environmental health under the CEC;
- 2) Convening a government workshop in the fall of 2000 in Mexico, with representation from ministries with responsibilities for environment, health, industry, finance, natural resources and others, as appropriate, in order to share information and expertise on national programs, and in order to develop a CEC agenda for children's health and the environment. As a starting point, this agenda will address asthma (including triggers such as environmental tobacco smoke, indoor pollutants and outdoor air pollutants) and other respiratory diseases, the effects of lead including lead poisoning, and the effects of exposure to other toxic substances;
- 3) Ensuring public and stakeholder consideration and feedback on the CEC agenda;
- 4) Applying the perspective of children's health and the environment to key work areas of CEC to find opportunities to advance the protection of children's health from environmental threats. In particular, opportunities in the following areas will be explored:
 - a) Sound Management of Chemicals: ensure inclusion of a strong children's health focus in the development of the draft NARAP on environmental monitoring and assessment and, where appropriate, identify initiatives that will decrease the impacts on children's health from bioaccumulative, persistent and toxic substances addressed in other NARAPs;
 - b) North American Free Trade Agreement (NAFTA) Trade and Transportation Corridors Project: ensure that this project, while addressing air quality issues associated with increased transboundary transportation, takes into account the effects on children's respiratory health; and
 - c) Exploring, with the advice of relevant experts (such as the Expert Advisory Board), the feasibility of developing a special feature on children's health and the environment, possibly as part of the North American Pollutant Release and Transfer Register;

- 5) Initiating activities to increase parents' and the public's awareness and education about environmental threats to children's health and ways of preventing exposure to these threats. As a first step, the CEC Secretariat will work with the Parties, engaging other relevant experts to:
 - a) Develop a web page that would provide relevant information and links to other sources on children's health and the environment; and
 - b) Facilitate the exchange of information, scientific techniques, and experiences of jurisdictions in providing smog forecasts/alerts to the public so that they can take action to protect themselves, noting that Environment Canada is hosting a tripartite workshop in November on air quality forecasting; and
- 6) Providing, through the CEC web page, a repository of research initiatives and other relevant scientific information related to children's health and the environment to build synergy between the health and environment research communities in the three countries.

APPROVED BY THE COUNCIL:

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