



THE **SANDBOX** PROJECT

3rd ANNUAL WORKSHOP ON CHILD AND
YOUTH HEALTH

***BUILDING ON PRIORITY
AREA RESULTS &
INCUBATING NEW
INITIATIVES***

The Environment



Co-Chairs

- **Dr. Eric Crighton** – Associate Professor, Department of Geography, University of Ottawa
- **Peter Robinson** - CEO, David Suzuki Foundation





Environment Working Group: Advancing Children's Environmental Health

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Environment Working Group:

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- Theresa McClenaghan, Executive Director and Counsel, Canadian Environmental Law Association
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The health of Canadian children

- Asthma affects 22% of children aged 5-9 years of age (Gershon, et al. 2010)
- Rates of neurodevelopmental disorders are growing (NEDSAC, 2012)
- Many childhood cancers on the rise
- Environmental factors estimated to be responsible for 13% of disease burden (Health Canada 2010)
- Up to 25,000 deaths and billions of dollars in health care costs associated with adverse environmental exposures (Boyd and Genuis, 2008)



How does the environment affect children's health?

- Environment:

- All the social, economic, and physical components including humans themselves (Pedersen, 1996)

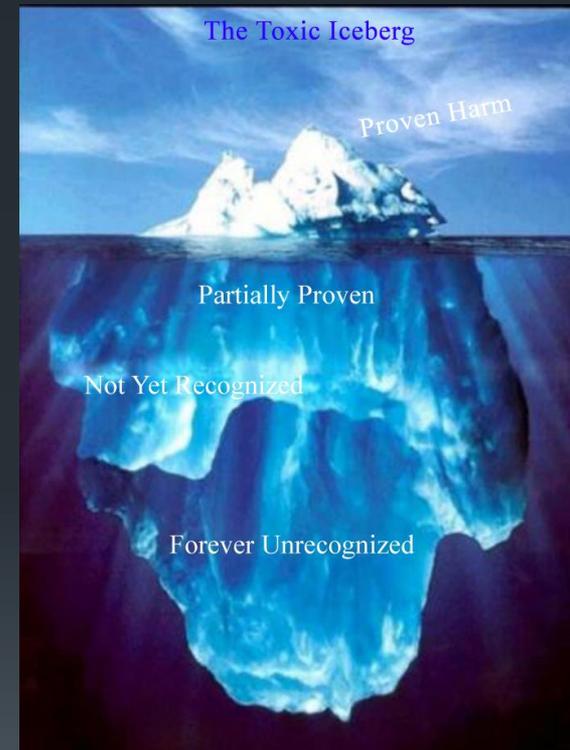
- Environmental Health:

- “Environmental Health comprises those aspects of human health, including quality of life, that are determined byboth the direct pathological effects of chemicals, radiation and some biological agents, and the effects (often indirect) ...of the broad physical, psychological, social and aesthetic environment, which includes housing, urban developmental land use and transport” (WHO 1990).



EH relationships inherently complex and poorly understood

- Chemicals rarely adequately tested
- Hazard may be known but what are the risks?
 - Mechanisms not understood
 - Complex cause-effect relationships



Poorly understood in adults...even less so in children

- Research adult focused
- Children are not miniature adults
 - More exposed
 - More vulnerable
- Some children more at risk than others
- Many examples:
 - Flame retardants (PBDEs).
 - BPA in food packaging, toys etc.
 - Outdoor air pollutants



Challenges to improving CEH:

- Limited research capacity
- Burden of proof on the public; overly onerous
- Outdated laws and lack of enforcement
- Limited public involvement in children's EHP
- Lack of mainstream understanding of environmental health



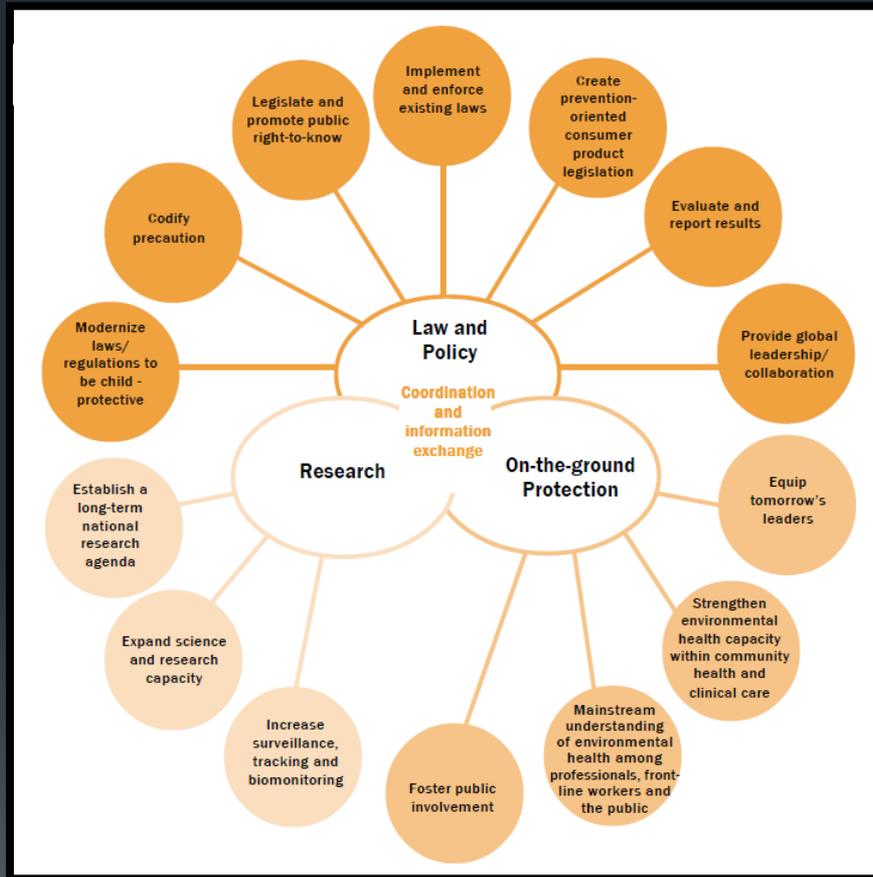
Recommending an integrated strategy...

...that addresses the mutually-supportive links among:

Research – generating the knowledge base to propel protective action

Law and policy - establishing protections for all (including the most vulnerable) and addressing issues beyond individual control

On-the-ground protection – fostering awareness, knowledge and capacity among parents, families and the people who work with them to (1) empower individual action and (2) create an informed citizenry



Source: CPCHE, 2008

Setting an agenda: a 5 year work plan

- CIHR Meeting Grant:
 - Environmental Scans:
 - Canadian scan on scope of evidence re. relationship between the environment and children's health
 - international scan of relevant policies being implemented
 - Workshop:
 - Goal: prioritize needs and generate ideas to inform a 5 year plan
 - Working group + over 30 leading children's environment and health experts specializing in **research, advocacy and policy**
 - Outcome: 5 year work plan (draft version)



Some broad goals:

- Develop partnerships between working groups
- Act as a repository for environmental health resources - evidence, tools, policy
- Encourage and support community champions/community development; involve children
- Support research infrastructure needed to understand the environment, health and their relationships
- Support creation of an independent Children's Commissioner to represent the interests of children



Specific goals:

Support for the Canadian Healthy Infant Longitudinal Development (CHILD) Study

- Multi-centre, multidisciplinary, longitudinal, population-based birth-cohort study of 3,500 children enrolled “pre-birth” and followed for five years.
- Purpose - determine what aspects of the environment interact with genetic factors to affect children’s health and development
- Letter of support to Minister of Health has been drafted
- Encourage support from other working groups

<http://www.canadianchildstudy.ca/index.html>



Analyses of existing EH data

- Important research opportunities from existing data
- Examine relationships between disease risk factors and health status
- Canadian Health Measures Survey (CHMS)
 - representative sample including children, youth and individuals of child bearing age
 - Includes measures of:
 - Chronic and infectious diseases
 - Numerous environmental and nutrition markers (blood, urine samples)
 - Behavioural information
 - Environment and housing
 - Socioeconomic characteristics.
- Opportunity to collaborate with other working groups



Review evidence on efficacy of interventions

- Numerous intervention strategies and tools developed but few evaluated for efficacy
- Evidence not easily accessible/disparate literatures
- Literature review; compile evidence
- Develop and promote intervention best practices



Investigate and advocate for change to product labeling and EH claims

- Increasingly products labeled as all natural, non-toxic, low VOC and even nut free
- Claims often cannot be verified; few standards exist
- Plan to develop a project to:
 - Identify environmental health claims in consumer products
 - Examine impact of claims on consumer perceptions, choices
 - Explore 'meaning' behind claims
 - Make information available to encourage greater consumer scrutiny of claims
 - Advocating for better labeling standards



Thank-you!

For more information:

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