

# CPCHE/CELA Healthy Retrofits Project

**Low-Income Energy Network  
(LIEN) Conference  
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canadian partnership for



**children's**  
health & environment



Canadian Environmental  
Law Association



# Overview

1. Who is CPCHE?
2. Why focus on toxics and child health?
3. Impetus and need for work on “healthy retrofits”
4. CPCHE/CELA project overview



# 1. CPCHE At a Glance



## Who is CPCHE?

...an affiliation of twelve organizations working together since 2001 to protect children from toxic chemicals and pollutants.

## CPCHE Partners

- Canadian Association of Physicians for the Environment (CAPE)
- Canadian Child Care Federation (CCCCF)
- Canadian Environmental Law Association (CELA)
- Canadian Paediatric Society (CPS)
- Environmental Health Clinic – Women’s College Hospital
- Environmental Health Institute of Canada
- Learning Disabilities Association of Canada (LDAC)
- Ontario College of Family Physicians (OCFP)
- Ontario Public Health Association (OPHA)
- Pollution Probe
- South Riverdale Community Health Centre
- Toronto Public Health (TPH)



## 2. Why focus on preventing toxic exposures during childhood?

- Environmental exposures are among the factors (including genetics, socio-economic status, etc.) that determine health and well-being throughout life.
- Early environmental exposures (i.e., preconception, fetal and childhood) often have the greatest potential for harm.
- Environmental exposures are largely preventable.



# Environmental exposures are linked to increased risk of...

- Asthma and respiratory problems
- Impacts on brain development and brain functioning
- Cancer
- Impacts on reproduction, fetal and child development
- Impacts on the endocrine system and immune system



## Today's Reality



- **Asthma** affects one in 10 children aged 0-5 years (Statistics Canada, 2000/2001 data).
- **Learning and behavioural problems** affect about one quarter of children in Canada age 6 to 11 (NLSCY, 1997 data) and are on the rise according to recent Stats Canada data.
- **Birth defects** of the male reproductive system appear to be on the rise (Wigle, 2003).
- **Cancer** is rare among children but remains the leading cause of illness-related death for children over one year of age. Incidence of several cancers is rising among adolescents and young adults (CCS 2009), raising questions about the role of exposures during early development.

# What makes the fetus and child more vulnerable?

## Higher levels of exposure:

- Children eat, drink and breathe more than adults per unit of body weight
- Behaviours (e.g., hand-to-mouth activity) increase exposures to contaminants, such as those in house dust

## Greater susceptibility to harm:

- Rapid, dynamic process of development creates “windows of vulnerability”
- Immune and detoxification systems are immature

***Socio-economic factors, such as poverty, place many children at even greater risk for both exposure and adverse health effects.***



# Greatest exposure sources?



- Data are poor but three major areas emerging:
  - Air (indoors and outdoors)
    - indoor dust
  - Food (multiple sources)
    - indoor dust
  - Consumer products (largely indoors)
    - indoor dust
- Exposure-effect connection is greatest information gap



### 3. Impetus and need for work on “healthy retrofits”

- Numerous incentive programs for energy efficiency are spurring renovations/retrofits across the province.
- Levels of awareness about the potential environmental health risks that can arise from renovations (e.g., lead paint) are insufficient.
- Protective policies are lacking or incomplete.
- The result? Increased potential for unintended collateral damage to children’s developing bodies and brains.

# Leaded paint: Still a pervasive hazard



## **Other environmental hazards potentially associated with renovations/retrofits**

- Asbestos
- Mould
- Solvents in adhesives, caulking, paints and other surface coatings
- VOCs (e.g., formaldehyde), fungicides and other chemicals in new building materials
- Phthalates in PVC plastics
- Arsenic from pre-2004 pressure treated wood
- Flame retardants in textiles, furnishings

## 4. CPCHE/CELA Healthy Retrofits Project

- CPCHE project, with CELA as lead partner
- 2-year (2010-2011) project funded by Ontario Trillium Foundation
- Multi-sectoral project Advisory Committee
- Emphasis on needs of low-income residents



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## Project objective

→ To **prevent health risks to children** within the increasing push for energy efficiency in the built environment by **working with** energy efficiency consultants, public interest groups, government departments, landlords, retailers and others **to promote awareness of, and preventive measures to address, potential toxic chemical and indoor air quality risks** associated with building (including school) **retrofits** and home **renovations**.

## Guiding principles

- **Precautionary principle**
- **Prevention**
- **Evidence-informed** priorities and recommendations for action



## Phase 1: Prepare baseline report

- **Literature/website scan...**
  - of existing relevant guidance and policy, and
  - to assess degree of attention to toxic exposure issues in relevant programs
- **On-line survey** of energy efficiency consultants and others to gauge existing knowledge and practice
- **Key informant interviews** with stakeholders (e.g., government officials, homeowner/landlord/tenant associations, public interest groups, retailers, construction/renovation industry) on current practices, gaps, opportunities, barriers, etc.

→ Preparation of **baseline report** (Winter 2010/2011)

## Phase 2: Develop outreach materials

- Based on learnings from Phase 1 and in consultation with stakeholders...
  - Identify potential target audiences, key intermediaries and core messages for raising awareness of potential sources of toxic chemical exposure and safe renovation/retrofit practices
  - Draft outreach materials
  - Conduct peer review and pilot testing
  - Publish and disseminate in multiple languages

## Phase 3: Promote uptake/ adoption of project outputs

- Publicize project findings, recommendations and outputs at relevant conferences and events
- Encourage uptake of core messages and outreach materials into relevant governmental programming (e.g., energy efficiency incentive programs)
- Continue to liaise with relevant players (landlord associations, relevant public interest groups, retailers, building/reno industry) to encourage adoption of project messages/outputs
- Encourage policy improvements



# Thank you.

*For more information....*

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