INTRODUCTION

Environmental health is the branch of public health that focuses on all aspects of the natural and constructed environment affecting human health. Risks include air pollution, contaminants in water and soil, tobacco smoke, pesticides, radiation, and noise. The World Health Organization (WHO) definition includes both the direct effects of chemicals, radiation and some biological factors, as well as the indirect effects of the physical, psychological, social and aesthetic environment on human health. This definition also includes the impact of housing, urban development, land use and transportation.

Children are generally more vulnerable to environmental hazards than adults. As children grow and develop, their developing systems may be more affected than an adult’s fully formed systems. Also, childish behaviours, such as putting items in the mouth, expose children to toxins in a manner not experienced by most adults. Recent research has shown a link between exposure to environmental contaminants and negative child health outcomes, including:

- learning and developmental disabilities
- birth defects
- low birth weight
- Fetal Alcohol Spectrum Disorder (FASD) and Fetal Alcohol Effects (FAE)
- some cancers
- endocrine disruption
- asthma

First Nations children are at greater risk of exposure, or may be more susceptible to the effects of environmental contaminants.

Approximately one-third (32%) of Canada’s First Nations population (on-reserve and off-reserve) consists of children aged 14 and under.

The mortality rate among First Nations infants is twice that of other Canadians; and levels of morbidity (illness) and mortality (death) remain high throughout the first 18 years of life.
CHALLENGES AND CONSIDERATIONS

First Nations people are four times more likely to live in a home in need of major repairs and are five times more likely to live in crowded homes. Poor housing conditions and crowding can contribute to serious health problems such as:

- respiratory illnesses (e.g. asthma);
- spread of infectious diseases such as tuberculosis and Hepatitis A;
- stress and difficult relationships with family and other household members.

The ESU has written a discussion paper to provide an overview of the issues concerning First Nations children’s health. This paper serves as a starting point for further discussion. In 2002-03, the Regional Longitudinal Health Survey, conducted on reserves across Canada, collected information on the health and development of children under the age of 12.

First Nations communities should adopt the precautionary principle ("better safe than sorry") especially when it comes to the health and well-being of our children. The precautionary principle dictates that harm should be prevented wherever possible, even when the scientific evidence is uncertain or unattainable.

![Figure 1 - Major Pathways of Human Exposure to Environmental Contaminants](http://www.healthyenvironmentforkids.ca/Primer.pdf)

The Canadian Partnership for Children’s Health and the Environment provides a list of **Top Ten Environmental Childproofing Tips.** Childproofing includes a set of changes, generally in a child's home environment, that are intended to prevent injury and exposure to toxins.
1. **Healthy Living and Healthy Eating**
   - Do Not Smoke
   - Eat a healthy, balanced diet
   - Avoid all alcohol during pregnancy
   - Follow fish advisories – especially for pregnant and nursing women, children, and women of childbearing age
   - Breastfeed your baby as long as possible
   - Be physically active

2. **Housecleaning**
   - Take your shoes off at the door
   - Use a wet mop or duster instead of dry mopping and dusting
   - Use an efficient vacuum cleaner
   - If you work in construction or with chemicals, take extra care to isolate your shoes and clothing from children

3. **Healthy Indoor Air**
   - Regularly ventilate indoor spaces by opening a window or using a fan
   - Do not smoke in the home or in the car
   - Do not let children sleep with pets
   - Protect your home from carbon monoxide poisoning by opening the garage door before starting the car

4. **Outdoor Air Pollution Reduction**
   - Drive less and find a carpooling buddy
   - Support reduced urban sprawl
   - Conserve water and energy
   - Never burn plastics, synthetics or pressure-treated wood

5. **Toxic Use Reduction**
   - Always try to choose “green” or non-toxic cleaning products
   - Ventilate cleaned areas well and keep children away until odours are gone
   - Avoid pesticide use
6. **Safe at Play**

- Prevent UV Exposure by covering up children under six months and make sure children wear hats and sunscreen
- Modify outdoor activity when air quality is poor
- Wash children’s hands after playing on structures built with all types of pressure-treated wood
- Discourage young girls from using nail polish, nail polish remover and hair-dyes

7. **Safe Renovations**

- Pregnant women, children and pre-teens should avoid all home renovations
- Avoid renovating in the winter when ventilation is difficult
- Bring in qualified professionals to identify and remove materials containing asbestos

8. **Special Measures in Rural and Northerly Settings**

- If your water supply is from a well or local lake, make sure the water is checked regularly
- Eliminate burn bins or burning piles
- Never burn plastics, synthetics or pressure-treated wood
- Follow fish advisories and find out if there is contamination in any local wild game or traditional foods

9. **Become an Informed Consumer**

- Always try to choose the non-toxic or lower risk alternative for most products
- Refer to Health Canada’s on-line information about cosmetics and other products
- Limit cell phone use by children
- Think before throwing something out, especially “e-waste”, such as cellphones, computers, printer cartridges
- Find out about recycling options offered by municipalities or retailers

10. **Get Involved**

- Work together with parents, staff, school, child care settings and recreation facilities to improve indoor air quality and reduce the use of toxic products
- Insist that industry, manufacturers and retailers create and supply healthy, safe products from “cradle to grave”
Work in your community and support organizations that work toward children’s health

For Further Information

Canadian Partnership for Children’s Health and the Environment - Child Health and Environment Primer
http://www.healthyenvironmentforkids.ca/img_upload/13297cd6a147585a24c1c6233d8d96d8/CPCHE_VandS.pdf

Health Canada’s on-line information about cosmetics and other products: