

Maternal-infant Child Health and Environment Research Symposium:
“**How Local Research can Influence Policy and Practice**”

Thursday, February 26th, 2009, 08:00-17:00 hrs
Maple Leaf Room, Lister Conference Centre, University of Alberta

Presenter: *Irena Buka, MB, ChB, FRCPC*

Presentation Summary: *Why Research in Maternal-infant Child Health and Environment in Alberta*

Research interest in how the environment affects children has been embraced internationally and more recently nationally within Canada. This conference is bringing together local researchers to discuss their research, relevant Maternal- infant Child Health and Environment, to exchange information, to network, to learn about the challenges and limitations of research projects and to address the bigger questions regarding environmental influences on the health, growth and development of children. The reasons for a coordinated, integrated research approach rests on clinical questions that paediatricians and other health care professionals have received over the years and have been unable to answer regarding the etiology of the many environmentally related disorders, including asthma, neurodevelopmental and behavioral disorders in children, congenital anomalies, reproductive outcomes eg. prematurity, cancer, as well as endocrine disorders. More recently there has been growing awareness of environmental concerns related, not only to the health of humans, but particularly to sustainability of future generations. This has led to great interest by governments to address the effects of major issues such as ecological degradation and climate change, consumerism and lifestyles.

The World Health Organization (WHO) identifies health as more than just an absence of disease but encompasses the holistic well-being, health, growth and development of children. Our hope for our children is to eventually grow into adults, optimal in their productivity, personal happiness and procreativity. WHO identifies determinants of health in a broad range of social and physical factors interacting on the genetic makeup of an individual. The social factors may include socio-economics, psycho-emotional, education, culture ethnicity and gender factors. The physical factors include biological, chemical and direct factors eg. activity and regulation.

The public have been exposed to an abundance of environmental information including growing air pollution in Alberta, lead water pipes in 5000 Edmonton homes, withdrawal of children's toys due to high levels of lead, the banning of bisphenyl-A and questions regarding safety of plastics. Media attention regarding the economic environmental consequences of the oilsands development in Northeastern Alberta has been

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persistent. More recently, an article in the Edmonton Journal describes a call by experts to create a new Edmonton facility that could test for links between chemicals and disease through biomonitoring of body fluids and tissues.

Canada has participated in the subject internationally through a collaboration with the World Health Organization, Commission for Environmental Cooperation, clinically through the Paediatric Environmental Health Specialty Units of the USA. The Canadian International Development Agency has worked with developing countries to investigate and manage environmental concerns.

Canada has undertaken recent national activities including a report on the health of children and youth which identified a gap in knowledge and services for environmental influences on the health of children. A Federal-Provincial-Territorial committee on health and the environment has created a children's component where health and environment ministry representatives meet to further the issue of children's health and the environment. There have been a number of multicenter research projects funded by the Canadian Institutes of Health research(CIHR) and Health Canada studying various environmental factors on child health and development longitudinally in cohorts. The Canadian Pediatrics Society has recently developed a Paediatric Environmental Health section that Health Canada is supporting.

These Canadian national activities are driven by Federal and Provincial governments who are at the table identifying the need for good governance regarding protection of children from environmental issues. These intentions are not purely altruistic. Studies on the economic valuation of environmentally related disorders in children and their consequences identify costs in the billions of dollars for health care and other social programs in the US. More recently a similar valuation has been carried out by the Ontario College of Physicians and supported by the Canadian Medical Association identifying the economic burden of air pollution on Canadians in relation to related morbidity and mortality.

We look forward to relevant local research projects with policy and practice implications that will be discussed with the help of expert facilitation, local panelists and international wisdom.

A report of the proceedings will be available after the Symposium