

Paediatricians and the environment: Bringing our expertise to the support of Canadian children's health



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In June 2008, during the 85th Annual Conference of the Canadian Paediatric Society (CPS) in Victoria, British Columbia, a new CPS Section will hold its inaugural business meeting. This will be the Paediatric Environmental Health Section, which will bring together paediatricians, health professionals and scientists interested in promoting an evidence-based approach both to environmental health issues important to children and youth, and to education of health professionals and the public on these issues.

To many individuals familiar with the intense public (and sometimes political) interest in the environment, it may seem surprising that the CPS does not already have such a Section. Much of the reticence toward environmental health from Canadian paediatricians has revolved around the perception that some individuals who label themselves as 'environmentalists' may not be particularly familiar with the levels of evidence that we as physicians regularly apply to scientific issues. However, those founding the new Section feel that this is one of the most important potential functions of a Section – to bring together those interested in the subject for mutual learning, so that information disseminated widely is more likely to have received some thoughtful review by experts in the field and is thus more credible. Certainly the evidence that childhood illnesses may be linked to environmental influences continues to grow (1).

Public awareness of environmental health concerns is increasing as media attention focuses on environmental issues such as air pollution, climate change, food and water contamination, and even children's toys being recalled because of concern regarding lead exposure.

There is evidence that blood lead levels, within current regulatory limits, in young children may cause neurodevelopmental damage in immature, but developing, brain and neurological systems (2). Levels of air pollution within regulatory limits may impede lung function growth in Canadian children (3). We are faced with a continuing rise in asthma incidence – the reasons for which are certainly not clear, but there is little doubt that environmental influences such as air pollution, whether or not causative, do exacerbate many cases. Other issues raise sporadic concerns: water quality, which became prominent after the Walkerton (Ontario) outbreak; pesticides periodically

surface as substances of concern as groups in many communities and provinces fight for by-laws restricting cosmetic uses; and plastic containers (and medical devices) are condemned because of phthalate or bisphenol A content.

Concern for exposures in children leading to adult diseases brings into play the long latency periods of certain conditions. Note, for example, the flurry of recent literature (4,5) suggesting long-term exposure to certain pesticides may be associated with specific leukemias and lymphomas.

An important step in the process of bringing credibility to environmental science in child health was the creation of the Commission for Environmental Cooperation's trilateral Expert Advisory Committee on Children's Health and the Environment, appointed to advise the environment ministers of Mexico, USA and Canada, on issues of children's health as they relate to environmental exposures (6,7). The Government of Canada has since developed its intergovernmental collaboration on the Committee (8). Health Canada has demonstrated a commitment to protection of children from environmental hazards by sponsoring an international meeting on the subject in Edmonton, Alberta, in March 2006, and subsequently a recent national meeting in Ottawa, Ontario. This latter meeting brought hundreds of participants together to debate just these issues. While some viewpoints were controversial, all agreed that the influence of the environment on children's health is substantial and often unrecognized or denied, and the need to deal with some particular issues is urgent.

The American Academy of Pediatrics has had a Committee on Environmental Health for some years – a committee that has published valuable statements and even a book that is considered by many to be one of the most important resources on environmental health available to child health professionals (9). The Committee has now morphed into a 'nexus' on environmental health, which in effect combines Committee and Section functions into a single network. The lack of such a resource within the CPS has presented a marked contrast to the active approach to paediatric environmental health in the United States.

So what is the role of Canadian paediatricians in these debates? As health experts for children and youth, we will often be the first persons asked to give advice. We see

children with asthma, neurodevelopmental disorders, leukemia or lymphoma, and we need to identify the environmental influences that may be at work in our communities. We must learn to investigate for and manage environmentally related illnesses. We can educate other professionals and the public on good prevention practices – we believe that education of paediatric residents, in particular, on these subjects is inconsistent across Canadian post-graduate programs; the new Section may wish, for example, to press for paediatric environmental health to be included

both in curricula and in examinations, such as those of the Royal College of Physicians and Surgeons of Canada. We should advocate for change when we see environmental policies or practices that threaten the health of children. We need to be at the forefront of this debate, and the new Paediatric Environmental Health Section will enable Canadian paediatricians to become the champions we should be for the population we serve, by educating about and advocating for evidence-based and responsible environmental health policy.

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PAEDIATRIC ENVIRONMENTAL HEALTH SECTION

Executive: Dr Irena Buka, University of Alberta, Edmonton, Alberta (vice-president); Dr Harold Hoffman, Meadowlark Place Professional Centre, Edmonton, Alberta (secretary-treasurer); Ms Elaine Orbine, Canadian Association of Pediatric Health Centres, Ottawa, Ontario (member-at-large); Dr C Robin Walker, IWK Health Centre, Halifax, Nova Scotia (president)

Principal authors: Dr Irena Buka, University of Alberta, Edmonton, Alberta; Dr Robin C Walker, Dalhousie University and IWK Health Centre, Halifax, Nova Scotia

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