



Briefing Notes on Bill C-53
The Proposed New Pest Control Products Act

For the Standing Committee on Health

May 2, 2002

Contact:

Ms. M. Janet Kasperski, RN, MHSc, CHE

Executive Director

THE ONTARIO COLLEGE OF FAMILY PHYSICIANS

357 Bay Street, Mezzanine

Toronto, Ontario M5H 2T7

Phone: 416-867-9646 ♦ Fax: 416-867-9990

Email: ocfp@cfpc.ca ♦ Website: www.ocfp.on.ca

Introduction:

The Ontario College of Family Physicians (OCFP) and the College of Family Physicians of Canada (CFPC) were established in 1954 to set standards of practice for the new and emerging discipline of family medicine and to oversee the establishment of family medicine residency programs in the sixteen medical universities across Canada. Since that time, we have stayed very close to our academic roots.

In 1992, Health Canada released a survey showing that Canadians considered the medical community to be the most credible source of information on Health and the Environment. 41% ranked the medical community as the most credible source of information followed by Environmental Groups at 29% and the media at 2%. The survey emphasized the key role that family doctors should be playing in the prevention, assessment and treatment of exposures to environmental contaminants; however, family doctors identified a number of gaps in their knowledge base. The OCFP established the environmental Health Committee to assist medical students, residents and practicing family physicians to acquire a better understanding of the Environment and Health.

The Environmental Health Committee:

During the ensuing years, the Committee has undertaken a number of projects addressing a wide variety of environmental issues and concerns. In 1996, the Committee undertook a review of the literature on pesticides. The literature review included more than 300 studies and concluded that the potential for harmful health effects from pesticides is undeniable. The findings from the review were developed into a "Newsletter" for family doctors and a patient brochure for patients that was widely circulated amongst the general public and all levels of government. In distributing the "Newsletter" and through subsequent educational programs, we asked family doctors to:

- be on the alert for the possibility of acute or chronic pesticide toxicity
- educate patients regarding the known health concerns associated with pesticides
- encourage alternatives to pesticides amongst homeowners, local businesses, schools and municipalities

Children's Health Project:

In 2000, the OCFP & CELA (Canadian Environmental Law Association) released the major paper "Environmental Standard Setting & Children's Health". The report provided a detailed review of research into the greater susceptibility and exposure of children to environmental contaminants including pesticides. The comprehensive review of the literature underpinning the chapter on pesticides concluded that the potential for the health of children in Canada to be affected by pesticides is undeniable. The studies pointed to a wide variety of possible health effects in children from pesticides many of which are serious and in some case, life threatening. The data implicated pesticides as inducing damage to children's immune, endocrine, nervous and reproductive systems, as well as congenital anomalies and cancer. Both exposure and susceptibility to the effects from pesticides were documented as being greater in children as compared to adults based on the available scientific research. The report concluded that many Canadian children were enduring the negative effects of pesticides especially those from poor homes that may be treated with pesticides for insects, children living in agricultural areas, children of agricultural & pesticide manufacturing workers, aboriginal children exposed through their traditional diet and mother's milk and children with chemical sensitivities and immune deficiencies. The cumulative effects of being exposed to many different pesticides over a lifetime was seen as representing an unquantified and unacceptable risk to all Canadian children. The paper identified major shortcomings in the regulatory process to protect children from exposure to pesticides.

Children's Health & the Environment:

We are here today because the evidence today is even stronger than it was in the mid 1990s. A joint report from the European Environment Agency and the WHO Regional Office from Europe "Children's Health and Environment: A Review of the Evidence" identifies the fact that "40% of the global burden of disease attributable to environmental factors is estimated to fall on children under the age of five years". The report summarizes the existing knowledge as follows:

- childhood patterns of behaviour often lead to increased levels of pesticide exposure compared with adults (hands-to-mouth, certain eating habits)
- possible health effects include immunological effects, endocrine and disrupting effects, neurotoxic disorders and cancer.

The report provides a detailed report on children's exposure levels and states that fetuses, infants and children are exposed to pesticides on an almost daily basis. Their diet and special behaviour patterns often result in greater exposure to pesticides than adults. Pesticides may be present in food (including baby foods), drinking water and breast milk. Children consume more food and water per kilogram of body weight than adults and their diet is less diverse. They are also exposed to pesticides in their homes, schools, parks, swimming areas and by their pets. Their hand-to-mouth and play behaviours make them more at risk from exposure. Because their bodies are still developing fetuses, infants and children are more vulnerable to toxic compounds than adults. The ability to absorb, metabolize and eliminate toxins differs from that of the adult. As an example the blood-brain barrier and the immune systems in the immature organism are less likely to protect the young from harm.

In spite of major concerns regarding developmental neurotoxicity, endocrine and reproductive toxicity and immunotoxicity, the report finds reasons for concern regarding the adequacy of toxicology tests for risk assessment of pesticide toxicity in children and suggest strategies to reduce the risk of children's exposure to pesticides, including a call to develop appropriate toxicology tests to assess perinatal and childhood toxicity that may lead to development problem and interfere with the functioning of nervous, reproductive, endocrine and immune systems.

Bill C-53:

In Canada, pesticide manufacturers and others who see the value in the continued use of pesticides point to articles demonstrating inconsistent findings. The Pest Management Regulatory Agency (PMRA) is often presented with these studies due to a lack of access to a more balanced body of research provided by credible research scientists.

Our colleagues at the Canadian Association for Physicians for the Environment (CAPE), World Wildlife Fund (WWF) and the Canadian Environmental Law Association (CELA) have presented key recommendations to further strengthen Bill C-53. A summary of their key recommendation is as follows:

1. The Precautionary Principle needs to be embodied as the fundamental concept underlying all aspects of the legislation and needs to be at the level set by international standards.
2. Mandatory monitoring and reporting should be included in the Bill. The re-evaluation period should be reduced to 10 years and included a specific date for completion of the evaluation.
3. The preventive approach needs to be enshrined in the Bill, along with strategies to decrease the overall use of pesticides and increased rise of lower risk alternatives.

4. Transparency of information and public participation in the review processes should be included in the Bill.

OCFP agrees with these recommendations; however, we would ask that a fifth major principle be added. OCFP recommends that the Pest Management Regulatory Agency (PMRA) be required to base their judgements regarding the registering of a pesticide and the re-evaluation of formally registered products on **balanced evidence from credible sources**. Much more research is needed and that research, especially into substances that may be hormone disrupters (EDCs) or persistent organic pollutants (POPs). This research should be conducted by non-industry scientists to reduce the appearance of bias in the findings. This level of transparency will bode well for government in restoring public confidence that it is doing its utmost to protect the health of people and the environment. It will also bode well for industry in utilizing lower risk products, where absolutely necessary, whose risks have been assessed in a non-biased manner. In summary, we recommend that the Act **require that the science and research underpinning the regulation of pesticides be strengthened, unbiased and transparent**. Doing so will further strengthen the Bill and its ability to protect our most vulnerable citizens especially our children.

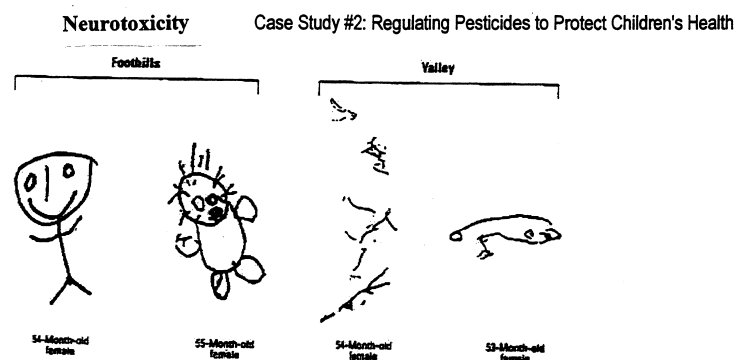


Figure 9.1(a). Representative drawings of a person by 4-year-old Yaqui children from the valley and foothills of Sonora, Mexico.

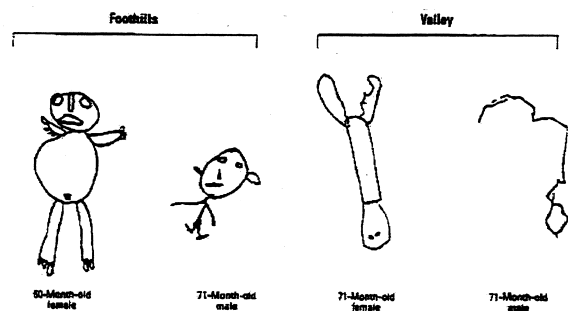


Figure 9.1(b). Representative drawings of a person by 5-year-old Yaqui children from the valley and foothills of Sonora, Mexico.
(Source: Guillette *et al.*, 1998, *op.cit.*)

In closing, let me draw your attention to drawings by 4 & 5 years old children from Mexico. The drawings on the right were made by children exposed to pesticides. The drawings on the left by children who were living in the foothills and protected from daily exposure. The detail of drawings in these early years corresponds with long-term cognitive abilities. The drawings speak

for themselves. We owe it to our children to do everything in our powers to protect them from harm.