

Campaign for Pesticide Reduction! Winnipeg
Presentation to the
“Healthy Kids, Healthy Futures”
All-Party Task Force
Winnipeg
January 11, 2005

Madam Chair and Members of the Task Force:

Good Evening, my name is Ian Greaves. I am the Chairperson of the Campaign for Pesticide Reduction! Winnipeg. I would like to begin by thanking the Task Force for the opportunity to make this presentation.

Introduction

The Campaign for Pesticide Reduction! Winnipeg is a group of citizens concerned about the overuse of pesticides in the province of Manitoba. C.P.R! Winnipeg’s mandate is to share information concerning urban and cosmetic pesticide use, and to work cooperatively with the Province of Manitoba, local governments, and other stakeholders to implement pesticide reduction legislation.

In the discussion paper prepared by the Task Force, we note that the Task Force is interested in factors affecting children’s health in the areas of nutrition, physical activity and injury prevention. So are we. Children cannot engage in healthy outdoor activity in an environment in which they may be exposed to injurious levels of pesticides. One of our group’s main concerns is the special hazards that pesticides pose for the health of children.

A healthy environment for physical activity

Children, as part of a healthy lifestyle, need to play and be active in a clean and safe outdoor environment. Manitoba does not currently have legislation to protect children from chemical exposure resulting from cosmetic use of pesticides. It is entirely legal to spray a lawn chemical on an area where small children might play immediately after, or near a day care or a play ground. While avoiding exposure to pesticides is prudent (as we will show), in this province it is often difficult.

Given the growing evidence that such casual use of pesticides poses a risk to children’s health, C.P.R! Winnipeg believes that this province has a responsibility to work towards reducing children’s exposure to pesticides. It is now well established that relatively low level exposures to toxic chemicals, occurring at critical stages of life, can cause permanent health damage.

Pesticides put children's health at risk

Children don't have the same built-in protective mechanisms that adults do. That is certainly true for chemical exposures. Because a child has a smaller body mass, there may be proportionally more of a toxicant hitting a proportionally smaller target. It is almost as though children are, involuntary, ideally designed for the job of chemical contamination. They have greater uptake because they are closer to the ground, crawling, and scampering in close proximity to the grass where pesticides may have been sprayed... They explore the world by putting things in their mouth. Their lungs have a higher surface area so they inhale relatively more contaminants with each breath. Their skin absorbs more poisons than adult skin.

The Task Force discussion paper notes that chronic diseases are the major cause of death and disability in Canada, with health care and other costs associated with chronic disease estimated at more than \$80 billion annually. The most significant chronic diseases are heart disease, cancer, diabetes and respiratory illness.

Asthma is the most common chronic childhood illness and has substantially increased in prevalence over the last two decades. In Canada, a 1999 research study indicates there has been a fourfold increase in asthma prevalence in children under age 15 in the last 15 years.¹

Salam et al showed in a recent study a strong association between exposure to herbicides in the first year of infancy and early persistent asthma.² The study found that infants exposed to herbicides before the age of one were 10 times more likely to develop early persistent asthma.

What does this mean? The most striking aspect of their finding is the very significant association of chronic illness with exposure to herbicides and pesticides before the age of one. This is the strongest association yet reported in a body of scientific literature in which there are few studies that have attempted to quantify early exposures to pesticides or herbicides and asthma risk in children. This study adds more broadly to the weight of evidence that exposure to herbicides and insecticides early in life can have an adverse effect and should be avoided in the home and other settings.

A study by Daniels et al found that certain types of childhood cancers have shown considerable increases; namely, acute lymphoid leukemia, tumors of the Central Nervous System, and bone tumors. Exposures to pesticides pre-conceptionally, prenatally and during childhood, in both environmental and occupational settings, have been associated with moderate increases in childhood brain tumors and leukemia.³

Lowengart et al found significantly increased risk estimates for childhood leukemia in relation to both parental and maternal pesticide use in the home and garden.⁴

Childhood cancers are relatively rare (in epidemiological terms) and therefore, difficult to study in samples of adequate size. Although the number of children affected is small, there is evidence of increased incidence of childhood cancers. In Canada, there has been a 25% increase in the last 25 years in cancer incidence among children under 15 years of age.⁵

During the past 50 or 60 years literally thousands of new chemicals have been introduced in industry and in consumer products. Relatively few have been fully evaluated for safety, even in adults. Evaluation of the impact of chemical exposure on children and on fetal development is rarely carried out. Understandably, there has been a great deal of public concern about the potential health effects of pesticides on the developing fetus and on children.

What we do know is that the fetus is selectively sensitive to particular chemical toxicants at certain stages of development. In the postnatal period and through pubescence, children are vulnerable to problems within their environment, be they difficulties in the physical, bio-chemical, or social environment. It is hardly surprising that pesticides, which are designed and used precisely because they disrupt vital biological processes, are among the suspect chemicals.

Children can also be at risk from an unlikely source, the very equipment they play on. The timbers in most wooden playgrounds sets contain potentially hazardous levels of toxins. Wood that is pressure-treated with Chromated Copper Arsenate (CCA), a common preservative, is the familiar greenish tinted wood often found in playgrounds. Its tendency to leach arsenic into the surrounding environment and the resulting potential to affect human health has been recognized since the early 1980s.⁶

Arsenic is classified as a “known human carcinogen” by the USA EPA and the International Agency for Research on Cancer (IARC), which is part of the World Health Organization.⁷ Although the Canadian manufacturers of CCA voluntarily agreed to phase out the use of the compound by 2003 December, there are many playgrounds in this province that still have it.

Elena Kwon et al did a study to determine the quantitative amounts of arsenic on the hands of children in contact with CCA treated wood or sand in playgrounds. Their conclusion was that children playing in these playgrounds had five times more arsenic on their hands than did children who did not play on structures that had CCA treated wood.⁸

Choices for healthy living

“Healthy living,” as the Task Force has noted, “is rooted in the conditions of everyday life.” As parents and caregivers, we make choices for our children. We can try our best to ensure that they have a healthy diet, and we can teach them to make safe and healthy decisions. But we cannot always protect them from pesticides.

C.P.R. Winnipeg believes that pesticides are greatly overused for cosmetic purposes on lawns and other turf areas in the province. At times during the summer, it becomes virtually impossible to avoid pesticide exposure in many neighborhoods across Manitoba as a result of public and householder use of pesticides.

We are pleased that Premier Doer announced back in August of 2004 the creation this Healthy Kids, Healthy Futures Task Force chaired by the Minister of Healthy Living. However, we seem to be a long way from protecting our children from chemical pesticides.

None of us in this room would ever intentionally want to harm a child. However, clearly, many environmental chemicals engender high levels of concern because of their association with adverse health effects on the fetus and child, and with increases in the diseases noted above. In only a very few instances has it been possible to attribute direct causation of a specific condition to a specific chemical or substance. (An obvious exception is the effect of low-level exposure to lead on neurobehavior.)

It seems that each individual chemical is treated as “innocent until proven guilty” despite our growing understanding that their complex interactions may intensify the risks. However, when animal studies determine definite effects, and when human observations lead to suspicion of similar or related effects of a particular substance or group of substances, it is surely appropriate that precautions be taken to minimize children’s exposure to the toxins under suspicion. In other words, it is prudent public policy to apply the precautionary principle, especially where the health of vulnerable children is at risk.

The aesthetic use of pesticides on lawns and turf, near play grounds and parks, falls under this principle. The costs of cosmetic use of pesticides are too high for the future health of the fetus and the child. Comparable aesthetic results are obtainable with safer techniques. Continued pesticide use for such purposes must therefore be viewed as denial of the basic right of a child to the highest attainable standard of health and to healthy environments for play.

A healthy future for kids in Manitoba

All across Canada, municipalities of many different sizes have passed various forms of restrictive pesticide by-laws, reflecting their concern over the health risks for children. The largest of these is the City of Toronto with a population of 2.48 million and the smallest is Sainte-Paule, Quebec with a population of 199 citizens. These communities have decided to make children’s health a priority.

Over the course of 10 evenings of hearings until the end of February, the Task Force will hear a lot of constructive suggestions to solve the problems of our children. Undoubtedly, many areas of potential action will be identified.

In the matter of children’s health and avoidable chemical risks, we respectfully observe that the Government of Manitoba has all the authority it requires to protect children in this province from exposure to pesticides applied for cosmetic purposes. The evidence already exists to justify a recommendation by the Task Force in support of a ban on the non-essential use of synthetic chemical pesticides.

The Campaign for Pesticide Reduction! Winnipeg calls on the members of this panel to take that step. Thank you.

FOOTNOTES

¹ Miller W and Hill GB. *Childhood asthma*. Health Reports 1998; 10: 9-21 Statistics Canada Catalogue # 82-003

² Salam, MT, Y-F Li, B Langholz and FD Gilliland. 2003. *Early Life Environmental Risk Factors for Asthma: Findings from the Children's Health Study*. Environmental Health Perspectives. doi:10.1289/ehp.6662

³ Daniels, J.L., A.F. Olshan and D.A. Savitz. *Pesticides and childhood cancers*. Environmental Health Perspectives. 105 (10) (1997), 1068-1077.

⁴ Lowengart RA, Peters J.M., Cicioni C, Buckley J. Bernstein L. Preston-Martin S, Rappaport E. *Childhood leukemia and parents occupation and home exposures*. J National Cancer Institute 79:39-46 (1987)

⁵ Canadian Institute of Child Health. *What on Earth? Proceedings from National Symposium on Environmental Contaminants and the Implications for Child Health*. Canadian Institute for Child Health. (May 1997), and National Cancer Institute of Canada. Canadian Cancer Statistics. (Toronto, Canada. 1995)

⁶ *Arsenic Lurks in Canadian Playgrounds: Is your child safe?* Environmental Defense Canada. January 2003

⁷ www.iarc.fr/

⁸ *Arsenic on the Hands of Children after Playing in Playgrounds*. Elena Kwon et al, Environmental health Perspectives, Vol 112/#14, Oct. 2004