

Environmental Standard Setting and Children's Health¹

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Childhood Cancer Statistics - Erratum and Clarification April 17, 2002

In Chapter 2 of this report, Section 2.6.9, page 70-71 the following two statements are made:

“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.”

The sources cited for these statements were the following:

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).

The proceedings for Session 6 (Childhood Cancer) of the above-named CICH symposium provided a summary of a presentation by Dr. Howard Morrison of the Cancer Bureau, Health Canada who was cited as stating that childhood cancer incidence had increased in Canada. The National Cancer Institute of Canada reference should have been for the year 1997 and not 1995. The 1997 National Cancer Institute of Canada source reports (in a graphical representation) that Canadian trends in childhood cancer incidence have shown a small but steady increase over the past 30 years. Mortality rates for childhood cancer have dropped over the same time period.

Unfortunately, the second statement about the *magnitude* of any presumed increase in Canadian childhood cancer was incorrectly cited. At the time this chapter in *Environmental Standard Setting and Children's Health* was researched and written, available data from the Surveillance, Epidemiology, and End Results (SEER) Program of the U.S. National Cancer Institute suggested that childhood cancer incidence in the United States had shown an approximate 1% per year average increase from 1974 to 1991 (Gurney et al, 1996).² This widely cited statistic from U.S. data provided the basis for an extrapolation of a 25% increased incidence over the last 25 years.

It should be noted that further statistical evaluation of data on childhood cancers diagnosed between 1975 through 1995 by U.S. National Cancer Institute researchers concluded that the modestly increasing incidence was a temporary phenomenon likely reflecting diagnostic improvements or reporting changes and that the incidence rates had stabilized (i.e. had not

¹ Canadian Environmental Law Association and Ontario College of Family Physicians Environmental Health Committee, *Environmental Standard Setting and Children's Health*. May, 2000. Available at www.cela.ca

² See Gurney JG, *et al.* Trends in cancer incidence among children in the U.S. *Cancer* 1996;78:532-41.

substantially increased or decreased) since the mid-1980s (Linnet et al, 1999).^{3 4}

The error in *Environmental Standard Setting and Children's Health* was to apply the original characterization of an average 1% per year increase in U.S. childhood cancer incidence to the Canadian situation. While it might be the case that Canadian incidence rates are comparable to those in the United States and other industrialized countries, there has as yet been no published analysis of long-term Canadian data that would support this statement.⁵

Thankfully, as noted in our report, childhood cancer is a relatively rare condition yet it is still the most common potentially fatal illness among Canadian children (Health Canada, 1999).⁶ Consequently there is ample reason to continue to evaluate factors (including environmental exposures) that may increase the risk of cancer in the young and to take appropriate steps to reduce potentially carcinogenic exposures. Researchers point out that we continue to have very limited understanding of the precise causes of different cancers in children. Preventing cancer in children is a high priority on the basis of potential years of life lost, quality of life issues and the potential for long-term (late) health effects in survivors (Savitz, 2001; Gurney, 1999).⁷

Additional discussion of the evaluation of environmental contaminants and childhood cancer can be found in a recent issue of *Pediatric Child Health*.⁸ See also the Children's Environmental Health Project on the website of the Canadian Association of Physicians for the Environment.⁹ We will provide a fuller update of the issue of childhood cancer in the next issue of CELA's newsletter, *Intervenor*.¹⁰

³ Linnet MS, et al. Cancer surveillance series: recent trends in childhood cancer incidence and mortality in the United States, *J. Natl Cancer Inst* 1999;91:1051-8.

⁴ For a summary of the US statistics on cancer incidence and trends, see Fact Sheet 6.40, National Cancer Institute Research on Childhood Cancers at: http://cis.nci.nih.gov/fact/6_40.htm

⁵ It is worth noting that the most common forms of cancer in Canadian children are also the most common forms of childhood cancer in the United States.

⁶ Health Canada. Cancer Incidence. In: *Measuring Up: A Health Surveillance Update on Canadian Children and Youth*. Rusen ID, McCourt C. (Eds.) 1999. http://www.hc-sc.gc.ca/hpb/lcdc/brch/measuring/mu_h_e.html

⁷ Savitz, DA. Environmental exposures and childhood cancers: Our best may not be good enough. *Am J. Pub Health* 2001;Apr 91(4):562-3.; Gurney, JG. Brain cancer incidence in children: Time to look beyond the trends. *Med Ped Oncol* 1999;33:110-12.

⁸ Chance, GW. Environmental contaminants and children's health: Cause for concern, time for action. *Paediatr - Child Health*. 2001;Dec. 6(10):731-743.

⁹ www.cape.ca and <http://children.cape.ca>

¹⁰ Current issues available at: www.cela.ca/Intervenor/current.htm