



## **CHILDHOOD CANCER**

### **FACT SHEETS ON HEALTH AND ENVIRONMENT IN WASHINGTON**

#### **INTRODUCTION**

Brain cancer and leukemia are the most common forms of childhood cancer. There is good scientific evidence that both are associated with environmental contaminants,<sup>1</sup> such as benzene, metal dusts, tobacco smoke and some pesticides.

Cancer is the second leading cause of death for children under 15 years in the U.S.<sup>2</sup>

#### **PROPORTION OF CHILDHOOD CANCER DUE TO ENVIRONMENTAL CONTAMINANTS**

It has been estimated that anywhere from 5% to 90% of childhood cancer is due to environmental pollutants.<sup>3</sup> The World Health Organization has estimated that 19% of cancers, excluding lung cancer, are due to the environment.<sup>4</sup>

#### **CHILDHOOD CANCER IN WASHINGTON STATE**

- In 2002, 302 children (0-19 years old) in Washington were diagnosed with cancer. Of these children, 113 were diagnosed with brain cancer or leukemia, and 189 were diagnosed with other types of cancer. This table shows the number of children that were diagnosed with brain cancer or leukemia in Washington in 2002.<sup>5</sup> It shows that leukemia was diagnosed more often in younger children while brain cancer was diagnosed more often in children 5-19 years old.

<b>Childhood Brain Cancer and Leukemia in Washington State, 2002</b>		
<b>Age Group</b>	<b>Brain Cancer</b>	<b>Leukemia</b>
0-4 years	6	31
5-9 years	16	9
10-14 years	15	9
15-19 years	16	11
<b>Totals</b>	<b>53</b>	<b>60</b>

- This table shows age-specific cancer death rates for 2000-2002 in Washington. Rates are per 100,000.<sup>6</sup>

Age	Death Rate
0-4 years	2.5
5-9 years	2.9
10-14 years	3.0
15-19 years	4.2

- Children in western Washington whose mothers rely exclusively on well water are more at risk for childhood brain tumors.<sup>7</sup>
- Childhood cancer in Washington state costs about \$15.4 million annually, including direct health care costs, indirect costs and costs for premature death.<sup>8</sup>

## COMPARING WASHINGTON STATE NATIONALLY

- Of the 2,233 children in the United States who died from cancer in 2003, 53 lived in Washington. The state death rate from all childhood cancers combined was 3.1 per 100,000 population, as compared to a national rate of 2.8.<sup>9</sup>
- Washington had the fifth highest childhood cancer death rates in the country in 2003. Only Idaho, New Mexico, California and Oregon had higher rates.<sup>10</sup>
- The rate of childhood brain cancer in Washington is higher than in the US overall, and the rate of childhood leukemia in Washington is the same as the national rate, as shown in the table below.<sup>11</sup>

Incidence of Two Childhood Cancers in Washington and US per 100,000 (2001)		
Type of Cancer	WA Incidence Rate	US Incidence Rate
Brain	3.1	2.7
Leukemia	4.2	4.2

## SOURCES

- 1 <http://database.healthandenvironment.org/>
- 2 <http://www.sustainableproduction.org/downloads/Child%20Canc%20Exec%20Summary.pdf>
- 3 <http://www.ehponline.org/members/2002/110p721-728landrigan/landrigan-full.html>
- 4 [http://www.who.int/quantifying\\_ehimpacts/publications/preventingdisease/en/index.html](http://www.who.int/quantifying_ehimpacts/publications/preventingdisease/en/index.html)
- 5 <http://www3.doh.wa.gov/WSCR/>
- 6 <http://www3.doh.wa.gov/WSCR/>
- 7 <http://www.ehponline.org/members/2001/109p551-556mueller/mueller.pdf>
- 8 [http://www.nwpublichealth.org/docs/nph/f2005/web\\_ex\\_davies\\_f2005.pdf](http://www.nwpublichealth.org/docs/nph/f2005/web_ex_davies_f2005.pdf)
- 9 [http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?00&515#RT\\_ForACancer](http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?00&515#RT_ForACancer)
- 10 [http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?00&515#RT\\_ForACancer](http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?00&515#RT_ForACancer)
- 11 <http://washington.chenw.org/pdfs/AntiochStudy1-05.pdf>