THE COLLABORATIVE ON HEALTH AND THE ENVIRONMENT - WASHINGTON

RESEARCH AND INFORMATION WORKING GROUP

COSTS OF ENVIRONMENTAL DISEASES AND DISABILITIES

FACT SHEETS ON HEALTH AND ENVIRONMENT IN WASHINGTON

INTRODUCTION

There are now generally accepted 'cost of illness' estimates for all common diseases and disabilities in the US, including cardiovascular disease, cancer, diabetes and asthma.

'Cost of illness' estimates usually comprise direct health care costs, including hospitalization, prescription drugs, home care, and physician and nursing services, and indirect costs such as lost productivity and special education.

Although monetary valuations of illness do not address the psychological and emotional costs to patients or their families, friends and communities, they are important because economic considerations have come to dominate public policy decision making in the US.

HEALTH COSTS IN WASHINGTON STATE

- Environmental diseases and disabilities in adults and children cost Washington state about $2.7 billion a year. This includes almost $800 million in direct health care costs and almost $2 billion in indirect costs, such as lost productivity.
- These costs are equivalent to 1% of the total Washington Gross State Product. The direct health care costs are equivalent to almost 5% of the total Washington state health expenditures.
- Childhood asthma affects about 8% of Washington children and is partially due to pollution. Childhood asthma in the state caused by environmental factors costs about $48.9 million a year (in 2004 dollars).
- Adult and childhood asthma costs about $426.3 million a year (in 2004 dollars). The portion of asthma that is caused by environmental factors is about $127.8 million a year (in 2004 dollars).
- Childhood cancers caused by environmental contaminants cost about $15.4 million (in 2004 dollars) annually.

- Adult and childhood cancers caused by environmental contaminants cost about $203.5 million (in 2004 dollars) annually.

- The best estimate of the annual costs of cardiovascular disease in Washington state due to air pollution is $564.3 million (in 2004 dollars).

- Exposure to lead during the early years of life can damage the developing brain and nervous system. Health problems in Washington state caused by exposure to lead cost about $1.5 billion (in 2004 dollars) in lost income due to reduction in IQ levels.

- Major birth defects are the leading cause of infant death in the US. Approximately 5% of all birth defects are caused by environmental exposures during pregnancy. Birth defects in Washington state caused by environmental factors cost between $4.2 million and $10.9 million (in 2004 dollars) per year.

- Neurobehavioral disorders probably affect about 2,400-6,500 Washington children a year. About 28% of these disorders can be attributed to environmental contaminants. The cost of neurobehavioral disorders caused by environmental exposures in Washington state is about $226.4 to 305.6 million (in 2004 dollars).

COMPARING WASHINGTON STATE NATIONALLY

- Nationally, the health and related costs of four childhood diseases and disabilities—lead poisoning, asthma, cancer, and developmental disabilities– was about $55 billion a year in 1997 dollars.[1]

- Illnesses and disabilities caused by environmental factors in Massachusetts—including cancer, asthma, neurobehavioral disorders, lead poisoning and birth defects—cost up to $1.6 billion annually.[2]

- The annual cost of childhood diseases attributable to pollution in Minnesota is estimated at about $1.5 billion.[3] Childhood diseases including asthma, learning and behavioral disorders, cancer, lead poisoning and birth defects attributable to environmental contaminants were included in an economic study similar to one released in Washington in 2005.[4]

SOURCES

1 Landrigan, P., Schechter, C., Lipton, J., Fahs, M., and Scwartz, J. *Environmental Pollutants and Disease in American Children: Estimates of Morbidity, Mortality, and Costs for Lead Poisoning, Asthma, Cancer and Developmental Disabilities.* Environmental Health Perspectives 110(7): 721-728 (2002)
2 Massey R., and Ackerman, F. *Costs of Preventable Childhood Illness: The Price We Pay for Pollution.* Global Development and Environment Institute, Tufts University (2003). http://ase.tufts.edu/gdae/publications/articles_reports/Childhood_Illness.PDF
3 http://www.mncenter.org/minnesota_center_for_envi/2006/07/mcea_in_the_new.html#more
4 http://www.nwpublichealth.org/docs/nph/f2005/web_ex_davies_f2005.pdf