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Protecting children from mercury exposure is cost effective

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We have a big problem: widespread mercury pollution is contaminating our waters, our fish and poisoning our children. The environmental and health damages caused by mercury have been fairly well documented. Now for the first time, we are learning more about the financial costs of mercury exposure.

Mercury is present at some level in all Minnesota lakes, rivers and streams. The Minnesota Department of Health has issued statewide fish consumption advisories due to mercury contamination. Mercury is a potent brain toxin that can cause reduction in IQ, as well as learning and developmental problems in children exposed to even low levels of methylmercury, the kind of mercury found in fish.

A new study by researchers at Mt. Sinai Medical School has quantified the economic impacts of mercury exposure, specifically on lost productivity due to reductions in IQ. The cost in lost productivity from methylmercury exposure is estimated to be \$8.7 billion annually. The researchers further estimated that \$1.3 billion of this is attributable to U.S. power plants, the largest source of U.S. mercury emissions.

The authors acknowledge that their analysis includes only the costs from reduced productivity in adulthood due to reduction in IQ. There are additional costs to society and to individuals from these exposures, which are much more difficult to quantify. Adverse social outcomes associated with IQ reductions include poverty, out-of-wedlock birth, low-weight births, welfare reciprocity and dropping out of high school. Because mercury causes learning and developmental problems in children, there are additional costs to the education system. On average it costs twice as much to educate a child with special education needs as it does a student not in special education. Preventing learning and developmental disabilities would also save significant public resources devoted to social service and criminal justice programs aimed at adults. Almost 40 percent of adults with learning disabilities have difficulties with employment or social adjustment. Likewise, an estimated 42 percent of adults in correctional institutions were eligible for special education programs. Other costs include lost wages and productivity for parents who miss work to deal with their children's problems and health care dollars devoted to diagnostic testing and mental health services. There are also unquantifiable personal impacts, as children, families and affected adults struggle with these problems on a day-to-day basis.

What's the economic impact on Minnesota? If we apply the \$8.7 billion cost to the proportion of Minnesota infants estimated to be at risk, we calculate an annual cost of \$156.6 million for Minnesota with an estimated \$23.4 million attributable to power plant emissions. Who pays these costs? The answer is all of us—as individuals and as taxpayers.

We must stop this cost shifting to the public and require coal plants to install the mercury control equipment that can take care of this problem over the next few years. A representative of Sorbent Technologies recently testified before the Senate Jobs, Energy and Community Development Committee that new technology is available to achieve a 90 percent reduction in mercury emissions from

Minnesota plants at a relatively modest cost.

Sen. Scott Dibble and Rep. Ray Cox are the chief authors of a bill before the Minnesota legislature this year that sets statewide mercury reduction goals and requires significant reduction from coal plants. Over the past ten years Minnesota has done a great job of reducing mercury from products, but we haven't made any progress on reducing mercury from power plants. Even though some of our mercury pollution comes from other states, Minnesota should take the lead in the Midwest in cleaning up mercury pollution, along with Wisconsin, which recently enacted mercury reduction rules.

The good news is that mercury pollution is something we can fix. Minnesota's legislators can act now to regulate mercury from all sources (including coal plants), which will ultimately contribute to making our waters, our fish and our children safe from mercury pollution.

Every Minnesota child has the right to grow up in a clean environment that is free of toxic pollutants, to safely eat fish and to realize their full intellectual and social potential. Mercury pollution is compromising these rights. And it's costing us all. ■

About the author

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