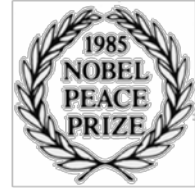




Physicians for
Social Responsibility



United States Affiliate of International Physicians for the Prevention of Nuclear War

The Need for Chemical Reform in the United States

During the past 30 years the incidence of childhood cancer, asthma, autism, infertility, premature births, birth defects, and a range of other problems has increased. For example, from 1976 to 1994, there was a 30 percent increase in the incidence of all types of cancers for children under the age of one (Gurney et al., 1999). Infertility, a marker for reproductive hazards of toxic chemicals, is on the rise. In 2002, 7.4 percent of women were considered to be infertile and unable to have children. As many as one in six couples in the U.S. are affected by infertility and in more than half of these cases, male infertility is a main factor. This means at least 10% of men in the U.S. experience infertility.

While some portion of these increases in disease incidence can be explained by better screening and detection, environmental factors also play a role. The World Health Organization (WHO) estimates that 25% of the global disease burden and 33% of the global childhood disease burden are caused by environmental factors that can be prevented (Prüss-Üstün & Corvalán, 2006). Those most affected by environmental factors are children, developing fetuses, pregnant women and other vulnerable individuals who have higher exposures or sensitivity to environmental pollutants, poor access to good nutrition, healthcare, or preventative health education, and may be socially disenfranchised. Studies have shown disparities in rates of cancer, cardiovascular disease, diabetes, and other health outcomes, including mortality, indicating environmental factors disproportionately affect minority groups (Gee & Payne-Sturges, 2004).

If the U.S. is to improve health nationally and globally, it must address environmental factors by preventing exposures to hazardous substances, such as persistent, bioaccumulative, or toxic chemicals.

The U. S. chemicals management system is broken. It fails to adequately protect human health from hazardous chemicals because it lacks mandatory safety requirements before a chemical can gain access to market. Chemicals are regulated in the U.S. principally through the Toxic Substance Control Act (TSCA) of 1976. The law gives legal authority to the Environmental Protection Agency (EPA) to ban the manufacture and import of those chemicals that pose an unreasonable risk. However, when TSCA was enacted it grandfathered in 62,000 existing chemicals in use, and since that time, less than 200 of these pre-existing chemicals have been tested for human safety -- while only five have been banned since 1990 (Government Accountability Office, 2005). In fact, the EPA has reviewed the human health risks of only an estimated 2% of the 62,000 chemicals that were in use in 1976. Under TSCA, new chemicals can enter the market without basic toxicity data if the EPA does not respond to a pre-manufacture notice within 90 days. Consequently, the vast majority of chemicals used in commercial products never have a federal review to evaluate potential toxicity (beyond acute toxicity) to infants, children, developing fetuses, or adults.

EPA's 1998 Chemical Hazard Data Availability Study revealed that although nearly 3,000 chemicals have High Production Volume status in the United States (defined by the EPA as imported or produced at one million pounds per year or more), complete basic toxicity profiles (covering acute, sub-chronic, chronic, developmental, and reproductive toxicity, as well as mutagenicity) were available for only 7% of these.

While the EPA has the authority to require additional testing existing chemicals, the agency first must prove that a chemical presents an unreasonable risk to human health or the environment during manufacture, distribution, use, or disposal; that inadequate data exists; and that testing is needed to predict its effects (Tickner et al 2008). Without the

necessary safety tests needed to determine the toxicity of a chemical before potential exposures, it is difficult for the EPA to make a case that a chemical presents an “unreasonable risk” and should not be produced.

The solution. There are three major gaps in current regulations: the data gap, the safety gap, and the technology gap. Chemical reform must close the data gap and supply the chemical toxicity and safety information currently missing. The safety gap, in which the EPA is unable to assess and control hazards, thereby allowing harmful chemicals to be released into the market, also must be modernized. Finally, the technology gap, in which companies have little or no incentive to find alternative, safer chemicals or methods, must be changed to move chemical policy towards safer alternatives for American consumers. The following approaches will help close these gaps:

- **Require Safer Technology and Alternatives.** Seek to eliminate hazardous chemicals use and emissions by altering processes, substituting safer chemicals, redesigning products and systems, and rewarding innovation. Increase public and private sector investment in R and D for sustainable chemicals, products, materials, and processes.
- **Develop processes and policies to ensure the rapid screening, prioritization, and decision making on a broad range of chemicals.** Establishing policies and processes that screen a broad range of chemicals grouped in classes will avoid overly lengthy chemical-by-chemical assessments and delayed action on hazardous chemicals.
- **Place the burden on manufacturers to demonstrate a chemical's safety.** Rather than expecting the government to prove harmful effects, manufacturers should shoulder this burden. Chemicals that fail to meet the safety standard will be banned or restricted.
- **Eliminate the Confidential Business Information Clause for chemical registrations.** Eliminate the Confidential Business Information clause that allows manufacturers to withhold information by claiming it is a trade secret and is necessary to be competitive.
- **Create a Chemical Use Database Clearinghouse.** Create a clearinghouse that documents where all chemicals are made, where and how they are being used, includes all available safety data, and identifies the chemical constituents of consumer products.
- **Classify Chemicals into Levels of Concern.** Implement a system for classifying chemicals into high, moderate, low, and unknown concerns categories. This tiered system will allow for prioritizing highly hazardous chemicals (persistent, bioaccumulative, or toxic) for phase-out after safer substitutes are identified.
- **Protect Child Health.** Prioritize chemicals that are found to be in cord blood of newborns to be phased out immediately. The Kid-Safe Chemicals Act (KSCA) would require biomonitoring and would deem these chemicals unsafe and necessary for phase-out.
- **Address Legacy Chemicals.** Communities burdened by legacy chemicals, such as lead and dioxin, need thorough remediation so that these can be removed from the environment.

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