



Statement of Principles on Cancer Prevention through Management and Regulation of Chemicals that Potentially Affect Cancer Risk

Cancer prevention is a critical element of the mission of the American Cancer Society (the Society) and its advocacy affiliate, the American Cancer Society Cancer Action Network (ACS CAN). The Society's role in primary prevention has traditionally focused on addressing a variety of risk factors in the human environment – including tobacco use, nutrition and physical activity, and sun exposure. Also falling within these prevention goals are understanding and minimizing cancers related to human exposure to toxic substances and pollutants, whether naturally occurring, manufactured, or released as a by-product of industrial operations. While exposure levels of many chemicals have been reduced in the workplace and ambient environment in recent years, new substances continue to be introduced and there is limited information about the potential effects of other chemicals already in use. Furthermore, the complexity of scientific and policy issues regarding chemicals present unique challenges for research and advocacy in this area. Although exposure to these substances is currently thought to be responsible for a relatively small proportion of total cancers in the U.S., the Society seeks to promote clearer understanding of the risk of chemicals in our environment and strategies for minimizing associated human health impacts.

As the science of toxicology, epidemiology and risk assessment evolves, new information should be applied to the broad system of evaluating chemicals and appropriate management and regulation instituted. Despite scientific uncertainty about the relationships between environmental pollutants and cancer, policy and regulatory solutions can be effective in minimizing cancer risk. This should be balanced with the practical reality that cancer risk can never be completely eliminated from either manufactured substances or the natural environment. To this end, public policies on chemicals management and regulation should meet the following goals:

I. Cancer risk should continue as one of the priority measures in evaluating human health risk from chemicals.

- Evidence regarding known or potential carcinogenicity and evaluation of risk in relation to dose should be an important part of regulatory determinations.

II. The public needs to better understand the risks chemicals present to human health.

- Public access to readily available and comprehensible sources of information about the human health risks from chemicals is needed to guide individual decision making and to ensure transparency regarding regulatory decisions.

- Public information should address major sources of concern, levels of exposure of concern, and substances of concern for cancer and other diseases.
- Public information about chemicals and risk needs to be evidence-based and provided with appropriate context so that consumers and users may make informed decisions.
- Appropriate public health messages are needed that provide information on relative cancer risk.
- There is a need to develop optimal methods for communicating this information to various audiences.

III. Priority should be given to evaluating chemicals in widespread commercial use.

- Potential risk depends on the number of people exposed and the levels of exposure in addition to inherent toxicity of a chemical or compound.
- Chemicals known to persist in the environment and/or bioaccumulate in the food chain should be given higher priority.
- Decisions on the use of toxic chemicals should be based on assessment of health effects, including, as the science and research methods continue to emerge, synergistic and cumulative exposures and early-life exposure.
- A comprehensive national strategy is needed to encourage innovation for developing and using chemicals that have lower potential risk to human health.
- Risk assessment policies for existing chemicals should take into account vulnerable populations such as children, pregnant women, workers in high-risk occupations, and those with existing health conditions that make them more susceptible to cancer risk from exposure to certain chemicals.
- Chemicals being considered as safer substitutes require rigorous evaluation before expanding their use to avoid unintended consequences.

IV. For new chemicals or compounds, human health risk should be evaluated before widespread public exposure to these substances.

- As is the case with existing chemicals, testing of new chemicals and compounds should take into account vulnerable populations such as children, pregnant women, workers in high-risk occupations, and those with existing health conditions that make them more susceptible to cancer risk from exposure to certain chemicals.

IV. The regulation and management of toxic chemicals in the U.S. needs to be strengthened.

- Because of the size and complexity of the issues surrounding cancer risk and chemicals, regulation of chemicals in the environment is appropriate and necessary. Information alone is not sufficient to address the public health concerns of toxic chemicals.

- The federal chemicals testing system needs to be enhanced and the speed and capacity for evaluating chemicals for carcinogenicity should be increased.
- Federal and state regulatory agencies' efforts to enhance policies and programs to minimize risks associated with occupational and community exposures to potential carcinogens need more tools and resources.
- Special attention in regulation and risk management of chemicals is needed to reduce the exposure of vulnerable and susceptible populations to environmental pollutants. These populations include, but are not limited to: children, those in lower-income areas, ethnic and racial minorities, and groups with extraordinary exposures (e.g., workers in some occupational environments).
- Systems for prioritizing, evaluating, and making scientific determinations about chemicals should be open and transparent to the scientific community and the public.
- Exposure to known or probable carcinogens determined to present unacceptable human health risk should be mitigated in a timely manner.
- Public policies must consider that eliminating all human exposure to carcinogens is not scientifically or technologically feasible.

V. Accelerate testing and research of both the health impacts of chemicals and ways to reduce public harm from these substances.

- Too little is known about the human health effects of many of the chemicals used today. How humans are exposed to chemicals in the environment, at what level, and whether adverse health effects are related to this exposure are critical questions for research.
- In areas where significant gaps in knowledge exist, more testing and research is needed on the toxicity of chemicals, human exposure pathways, dose effects and human health impacts.
- Research should expand to increase knowledge of vulnerable and susceptible populations, specific human exposure points during life, and cumulative exposures.
- Adequate funding needs to be directed at federal agencies such as EPA, NIH, and CDC, as well as the scientific community, to expand the evidence base on the link between chemicals and cancer.
- Greater incentives and funding are needed for research and programs that encourage the development of chemicals or compounds with minimal human health impacts to replace widely-used harmful chemicals. Similar support is needed to encourage development of processes that reduce toxic chemical inputs or by-products.

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