OREGON NURSES ASSOCIATION
ACTION REPORT
CHEMICALS POLICY REFORM

Submitted by the Cabinet on Health Policy

Recommended Action:
1. That ONA promote the reform and/or more energetic enforcement of local, state and national chemicals policy.

Rationale

Recent headlines in the news have alerted nurses and the public to dangerous levels of lead in toys, melamine in cat food and dairy products from China, phthalates in consumer goods and medical products, and bisphenol A (BPA) in many polycarbonate water bottles. Ongoing studies by the Centers for Disease Control have demonstrated that most Americans, including neonates, have multiple chemicals of concern in their bodies, and the levels of many of those chemicals are increasing over time. These exposures have occurred despite a plethora of laws regulating pollutants.

For chemicals such as lead and other heavy metals, and for polychlorinated biphenyls (PCBs) the science demonstrating harm is conclusive, although we are learning more about the subtleties of these chemicals’ insidious health effects. For other contaminants, such as polybrominated diphenyl ethers (PBDEs) and bisphenol A (BPA), animal and epidemiological evidence is inconclusive. Yet almost daily, new science about health effects emerges to increase our concern. It’s often difficult to make a direct link between toxin and disease. We’re seeing exceptional changes in the public’s health: increased rates of cancer, obesity, diabetes, autism, infertility, and asthma.

Toxicology is the study of chemicals harmful to living things. While few nurses study toxicology per se, nurses are familiar with many toxicological principles through their knowledge of pharmacology. Both medications and toxicants have acute, chronic and latent effects. Medication are characterized by controlled dosing, while exposure to toxicants is often uncontrolled, unknown, and/or inadvertent. Medications have both therapeutic and “side effects,” while toxicants are by definition poisonous, and often have unknown effects. Medications, at least older and well-studied medications, have known interactions amenable to study through controlled, double-blind experiments. Because it is unethical to deliberately expose human to toxicants, we must rely on animal and epidemiological studies to explore interactions among toxicants, and between toxicants and other aspects of the environment. (Welker-Hood, Condon & Wilburn, OJIN May, 2007)

The science of toxicology is advancing. In the old toxicological paradigm, the population of interest was primarily adult male workers. The dose-response relationship was linear; the greater the dose, the bigger the effect. Chemical were studied as if exposures to them occurred one at a time. The emerging toxicological paradigm indicates that the population most vulnerable to exposure is fetuses and children. Endocrine disrupters work at very small and very large doses in a nonlinear pattern. And that we have increasing evidence that the multiple chemicals we are exposed to may have synergistic effects.
Precaution, which ONA adopted as a guiding principle in 2003, requires that we work to protect the public’s health by decreasing our exposure to problematic chemicals: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action." 1998 Wingspread Statement on the Precautionary Principle

The current system regulating chemicals in the U.S. is very complicated. Over 14 major laws have been enacted over the past 30 years or so. The Toxic Substances Control Act (TSCA) was passed in 1976, and went into effect in 1979. This law allowed the Environmental Protection Agency (EPA) to screen the 62,000 then-new and existing registered chemicals, and identify hazardous products or uses.

The TSCA allows the EPA wide latitude in enforcing the intent of the legislation to prevent chemical pollution. Yet the EPA has had to negotiate several constraints written into the law. First, TSCA requires the application of cost/benefit analysis, which as it is applied, does not consider health effects. The EPA accepts the data the manufacturer supplies, however incomplete, and then must prove that a chemical is risky before it can get more data to demonstrate risk.

In 25 years, the EPA has complete safety data on only 200 chemicals, and has banned 6 of them. Today, there are more than 82,000 registered chemicals, of which 3,000 are manufactured and used in quantities greater than one million pounds per year. The TSCA regulates one chemical at a time, which is time-consuming and laborious. At the rate we’re going, it will take thousands of years to catch up.

The TSCA’s provision to allow trade secrets means that nurses and the public often do not know what chemicals comprise a product. Nurses are concerned about exposures to chemicals hidden in the “trade secret” or “inert” chemicals to which they are exposed at work. A recent news story reported that an ER nurse in Durango, CO was exposed to a toxicant on the clothing of a worker/patient. She suffered severe respiratory and cardiac effects, and it took hours for her colleagues to identify the chemical and its constituents before effective treatment could be started.

Nurses’ chemical exposure in their workplace is also of concern. The laws governing workplace exposure fall under the Occupational Safety and Health Administration (OSHA). A 2005 study of nurses undertaken by ANA, Health Care Without Harm and the Environmental Working group identified many health concerns linked to exposures in the workplace among the nation’s RNs. Though not a random sample of the RN workforce, the study brought out many issues of concern, and deserves to be refined, expanded, and replicated.

In the face of these concerns, appropriate reform efforts include:

- Investing in more and better science. Safety data should consider the most vulnerable populations: pregnant women and their fetuses, infants, and children.
- Stronger commitment to the “Right to Know.” The public and regulators should be able to access all health and safety data. In the case of new chemicals, manufacturers should provide safety data to regulating bodies and the public before chemicals go to market.
• For existing chemicals, public agencies should expedite analysis and regulation. The EPA should identify chemicals with inadequate data and assess safety; classify chemicals according to levels of concern; and exercise their authority to mandate reduction and/or elimination of chemicals of highest concern.
• The existing multi-state chemical safety clearinghouse should receive adequate public funding to continue and expand its work [fact check needed].
• Promoting “clean and green”, sustainable chemicals procurement policies for state, local and municipal governments and other large institutions such as hospitals, universities, and schools.
• Encouraging safe and clean design of chemicals, materials and products; investing in institutional capacity to research alternatives; and providing tax incentives to firms working towards safer alternatives.

Implementation:

The Oregon Nurses Association will:

1. Sign on to A Call for Safer Chemicals
2. Send a notice of this Action Report to ANA.
3. Publicize this Action Report to the ONA membership via www.oregonnurse.org, and article(s) in The Oregon Nurse, and to other nursing organizations in Oregon.
4. Work for passage of relevant legislation at the local, state and federal levels.
5. Encourage and promote training and education about chemicals policy for nurses at all levels of ONA, including chemicals of concern and workplace rights under OSHA.
6. Promote nurses’ action around chemicals policy reform in their hospitals or clinics, faith groups, and local government – and do in their own homes.
7. Foster development and implementation of curricula in undergraduate nursing programs to include content on Environmental Health. What ONA entity is going to do this?
8. Serve as a resource for individuals or groups exploring environmental health. What ONA Entity is going to do this?

Financial Impact

It is anticipated that the activities mandated by this Action Report will add only marginally to ONA staff’s normal activities in the policy and practice arenas. Grants funding extra activities have been received, and can fund much of the start-up activities of this effort. There is a small but dedicated volunteer cadre around these issues in ONA, and expansion and development of this group is desirable and necessary.

Bibliography

HCWH/ANA Work Group

www.oregonpsr.org
www.oregon-health.org
Welker-Hood, Condon & Wilburn, OJIN May, 2007