

# THE WORLD MEDICAL ASSOCIATION, INC.

## WMA STATEMENT ON ENVIRONMENTAL DEGRADATION AND SOUND MANAGEMENT OF CHEMICALS

Adopted by the WMA General Assembly, Vancouver, Canada, October 2010

### PREAMBLE

This Statement focuses on one important aspect of environmental degradation, which is environmental contamination by harmful domestic and industrial substances. It emphasizes the harmful chemical contribution to environmental degradation and physicians' role in promoting sound management of chemicals as part of sustainable development, especially in the healthcare environment.

Most chemicals to which humans are exposed come from industrial sources and include, food additives, household consumer and cosmetic products, agrochemicals, and other substances (drugs; dietary supplements) used for therapeutic purposes. Recently, attention has been concentrated on the effects of human engineered (or synthetic) chemicals on the environment, including specific industrial or agrochemicals and on new patterns of distribution of natural substances due to human activity. As the number of such compounds has multiplied, governments and international organizations have begun to develop a more comprehensive approach to their safe regulation.

While governments have the primary responsibility for establishing a framework to protect the public's health from chemical hazards, the World Medical Association, on behalf of its members, emphasizes the need to highlight the human health risks and make recommendations for further action.

### BACKGROUND

#### Chemicals of Concern

During the last half-century, the use of chemical pesticides and fertilizers dominated agricultural practice and manufacturing industries rapidly expanded their use of synthetic chemicals in the production of consumer and industrial goods.<sup>1</sup>

The greatest concern relates to chemicals, which persist in the environment, have low rates of degradation, bio-accumulate in human and animal tissue (concentrating as they move up the food chain), and which have significant harmful impacts on human health and the environment (particularly at low concentrations).<sup>2</sup> Some naturally occurring metals including lead, mercury, and cadmium have industrial sources and are also of concern. Advances in environmental health research including environmental and human sampling and measuring techniques, and better

---

<sup>1</sup> Wisner G, Center for International Environmental Law, UNEP Forum, Sept. 2005

<sup>2</sup> <http://www.unep.org/hazardoussubstances/Introduction/tabid/258/language/en-US/Default.aspx>

information about the potential of low dose human health effects have helped to underscore emerging concerns.

Health effects from chemical emissions can be direct (occurring as an immediate effect of the emission) or indirect. Indirect health effects are caused by the emissions' effects on water, air and food quality as well as the alterations in regional and global systems, such as red tide in many oceans, and the ozone layer and the climate, to which the emissions may contribute.

### **National and International Actions**

The model of regulation of chemicals varies widely both within and between countries, from voluntary controls to statutory legislation. It is important that all countries move to a coherent, standardized national legislated approach to regulatory control. Furthermore, international regulations must be coherent such that developing countries will not be forced by economic circumstances to circumvent potentially weak national regulations. An example of a legislative framework can be found at <http://ec.europa.eu/environment/chemicals/index.htm>.

Synthetic chemicals include all substances that are produced by, or result from, human activities including industrial and household chemicals, fertilizers, pesticides, chemicals contained in products and in wastes, prescription and over-the-counter drug products and dietary supplements, and unintentionally produced byproducts of industrial processes or incineration, like dioxins. Furthermore, nanomaterials, in some circumstances, can be regulated by synthetic chemicals regulations but in other cases, may need explicit regulation.

### **Notable International Agreements on Chemicals**

Several notable agreements on chemicals exist. These were prompted by the first United Nations Conference on the Human Environment declaration in 1972 (Stockholm) on the discharge of toxic substances into the environment.<sup>3</sup> These agreements include the 1989 Basel Convention to control/prevent trans-boundary movements of hazardous wastes, the 1992 Rio Declaration on Environment and Development, the 1998 Rotterdam Convention on informed consent and shipment of hazardous substances, and the 2001 Stockholm Convention on Persistent Organic Pollutants.<sup>4 5 6</sup> It should be noted that little information is available on the efficacy of the controls.

### **Strategic Approach to International Chemicals Management**

Worldwide hazardous environmental contamination persists despite these agreements, making a more comprehensive approach to chemicals essential. Reasons for ongoing contamination include persistence of companies, absolute lack of controls in some countries, lack of awareness of the potential hazards, inability to apply the precautionary principle, non-adherence to the various conventions and treaties and lack of political will. The *Strategic Approach to International Chemicals Management* (SAICM) was adopted in Dubai, on February 6, 2006 by delegates from over 100 governments and representatives of civil society. This is a voluntary global plan of action designed to assure the sound management of chemicals throughout their life cycle so that, by 2020, chemicals are used and produced in ways that minimize significant adverse effects on human health and the environment. The SAICM addresses both agricultural and industrial chemicals, covers all

<sup>3</sup> <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503&l=en>

<sup>4</sup> <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163>

<sup>5</sup> Wisner G, Center for International Environmental Law, UNEP Forum, Sept. 2005

<sup>6</sup> <http://chm.pops.int/Convention/tabid/54/language/en-US/Default.aspx>

stages of the chemical life cycle of manufacture, use and disposal, and includes chemicals in products and in wastes.<sup>7</sup>

## **WORLD MEDICAL ASSOCIATION (WMA) RECOMMENDATIONS**

Despite these national and international initiatives, chemical contamination of the environment due to inadequately controlled chemical production and usage continues to exert harmful effects on global public health. Evidence linking some chemicals to some health issues is strong, but there is not evidence for all chemicals, especially newer or nano materials, particularly at low doses over long periods of time. Physicians and the healthcare sector are frequently required to make decisions concerning individual patient and the public as a whole based on existing data. Physicians therefore caution that they, too, have a significant role to play in closing the gap between policy formation and chemicals management and in reducing risks to human health.

### **The World Medical Association recommends that:**

#### **ADVOCACY**

- National Medical Associations (NMAs) advocate for legislation that reduces chemical pollution, reduces human exposure to chemicals, detects and monitors harmful chemicals in both humans and the environment, and mitigates the health effects of toxic exposures with special attention to vulnerability during pregnancy and early childhood.
- NMAs urge their governments to support international efforts to restrict chemical pollution through safe management, or phase out and safer substitution when unmanageable (e.g. asbestos), with particular attention to developed countries aiding developing countries to achieve a safe environment and good health for all.
- NMAs facilitate better communication between government ministries/departments responsible for the environment and public health.
- Physicians and their medical associations advocate for environmental protection, disclosure of product constituents, sustainable development, and green chemistry within their communities, countries and regions.
- Physicians and their medical associations should support the phase out of mercury and persistent bioaccumulative and toxic chemicals in health care devices and products.
- Physicians and their medical associations should support legislation to require an environmental and health impact assessment prior to the introduction of a new chemical or a new industrial facility.
- Physicians should encourage the publication of evidence of the effects of different chemicals and dosages on human health and the environment. These publications should be accessible internationally and readily available to media, non-governmental organizations (NGOs) and concerned citizens locally.
- Physicians and their medical associations advocate for the development of effective and safe systems to collect and dispose of pharmaceuticals that are not consumed.
- Physicians and their medical associations should support efforts to rehabilitate or clean areas of environmental degradation based on a “polluter pays” and precautionary principles and ensure that moving forward, such principles are built into legislation.

<sup>7</sup> <http://www.chem.unep.ch/saicm/SAICM%20texts/SAICM%20documents.htm>

- The WMA, NMAs and physicians should urge governments to collaborate within and between departments to ensure coherent regulations are developed.

## **LEADERSHIP**

### **The WMA:**

- Supports the goals of the Strategic Approach to International Chemicals Management (SAICM), which promotes best practices in the handling of chemicals by utilizing safer substitution, waste reduction, sustainable non-toxic building, recycling, as well as safe and sustainable waste handling in the health care sector.
- Cautions that these chemical practices must be coordinated with efforts to reduce green house gas emissions from health care to mitigate its contribution to global warming.
- Urges physicians, medical associations and countries to work collaboratively to develop systems for event alerts to ensure that health care systems and physicians are aware of high-risk industrial accidents as they occur, and receive timely accurate information regarding the management of these emergencies.
- Urges local, national and international organizations to focus on sustainable production, safer substitution, green safe jobs, and consultation with the health care community to ensure that damaging health impacts of development are anticipated and minimized.
- Emphasizes the importance of the safe disposal of pharmaceuticals as one aspect of health care's responsibility and the need for collaborative work in developing best practice models to reduce this part of the chemical waste problem.
- Encourages environmental classification of pharmaceuticals in order to stimulate prescription of environmentally less harmful pharmaceuticals.
- Encourages ongoing outcomes research on the impact of regulations and monitoring of chemicals on human health and the environment.

### **The WMA recommends that Physicians;**

- Work to reduce toxic medical waste and exposures within their professional settings as part of the World Health Professional Alliance's campaign for Positive Practice Environments.
- Work to provide information on the health impacts associated with exposure to toxic chemicals, how to reduce patient exposure to specific agents and encourage behaviors that improve overall health.
- Inform patients about the importance of safe disposal of pharmaceuticals that are not consumed.
- Work with others to help address the gaps in research regarding the environment and health (i.e., patterns and burden of disease attributed to environmental degradation; community and household impacts of industrial chemicals; the most vulnerable populations and protections for such populations).

## **PROFESSIONAL EDUCATION & CAPACITY BUILDING**

### **The WMA recommends that:**

- Physicians and their professional associations assist in building professional and public awareness of the importance of the environment and global chemical pollutants on personal health.

- National Medical Associations (NMAs) and physician professional associations develop tools for physicians to help assess their patients' risk from chemical exposures.
- Physicians and their professional associations develop locally appropriate continuing medical education on the clinical signs, diagnosis and treatment of diseases that are introduced into communities as a result of chemical pollution and exacerbated by climate change.
- Environmental health and occupational medicine should become a core theme in medical education. Medical schools should encourage in the training of sufficient specialists in environmental health and occupational medicine.

★★★

