



WHO



ILO



UNEP

International Programme on Chemical Safety (IPCS)

Background

Inadvertent exposure to chemicals can adversely affect human health. The sound management of chemicals sits high amongst priorities for follow-up to the United Nations Conference on Environment and Development (UNCED), the World Summit on Sustainable Development (WSSD), and in relation to addressing the Millennium Development Goals. While progress has been made since UNCED in 1992, exposures to chemicals continue to cause ill-health in all population groups. For example, the World Health Report in 2002 estimated that acute poisoning due to chemicals causes the loss of 7.5 million DALYs annually, occupational cancer due to chemicals 1.4 million DALYs, and exposure to lead in the environment 12.9 million DALYs (where one DALY represents one lost year of healthy life). Because many developing countries and countries in transition lack the means to collect, record, analyse and report the relevant data, it is likely that such figures underestimate the real health impact of chemical exposures. With trade in chemicals predicted to increase considerably over the next 20 years, particularly the production and use of chemicals in developing countries and those with economies in transition, consequent increases in exposure to chemicals are likely.

IPCS and its Objectives

The International Programme on Chemical Safety (IPCS) is a cooperative programme between the World Health Organization, the International Labour Organization (ILO) and the United Nations Environment Programme (UNEP). IPCS was established in 1980. The central unit of IPCS is based at WHO's Programme for the Promotion of Chemical Safety (PCS).

The overall objectives of IPCS are:

- to establish the scientific basis for the assessment of risk to human health and the environment from exposures to chemicals; and
- to provide technical assistance in strengthening national capacities for the sound management of chemicals.

Elements of Work

Evaluation of chemical risks to human health covers three major activities: (1) preparation and publication of documents on the risks of specific chemicals; (2) development, improvement, validation, harmonization and promotion of scientifically-sound guidance for risk assessment; and (3) development of international consensus on emerging issues of international concern, such as endocrine disruptors, toxicogenomics and the protection of children and other population sub-groups with special vulnerability.

IPCS publishes a large number of scientifically-rigorous, in-depth, internationally peer-reviewed chemical risk assessments including Environmental Health Criteria monographs, Concise International Chemical Assessment Documents, International Chemical Safety Cards, and Poisons Information and Antidote Monographs.

IPCS also undertakes risk assessments for food safety in support of JMPR* and JECFA**. These include evaluations of food additives and contaminants and residues of veterinary drugs in food, as well as toxicological evaluations of pesticides. IPCS also responds to *ad hoc* needs regarding risks from chemicals in food, for example in relation to acrylamide.

All documents are disseminated through a variety of media to meet the needs of developing as well as developed countries: (a) the IPCS website (<http://www.who.int/pcs>); (b) on CD-ROM - IPCS INCHEM and IPCS INTOX; and (c) the IPCS INCHEM and INTOX databanks are also accessible through their respective web sites (www.inchem.org, www.intox.org) free-of-charge to the end-user.

Poisons information, prevention and management activities include the establishment and strengthening of poisons centres; production of internationally-evaluated guidance material for the prevention, diagnosis and treatment of toxic exposures; promoting networking and toxicovigilance; and developing and delivering information management systems to enable countries to collect and analyse data on poisoning cases and pesticide exposures to provide evidence for preventive measures and risk management strategies.

Chemical incidents and emergencies, including public health preparedness, response, prevention and surveillance provides the focus for activities to support implementation of the revision of the International Health Regulations and Resolution WHA 55.16 concerning the release or deliberate use of biological and chemical agents or radionuclear materials that may have global public health implications.

Capacity building builds on the above by promoting and strengthening the ability of countries to use internationally-developed guidance material in their chemicals management activities.

Future directions

IPCS will continue to place strong emphasis on developing evidence-based, normative, good-practice guidance to assist countries in assessing and mitigating the impact of chemicals on human health and the environment. Additional emphasis will be given to supporting countries in the prevention and management of chemical incidents and poisoning; improving the use of observational data on human exposures; and undertaking initiatives to reduce the adverse health impact of chemical exposures on vulnerable populations.

Contact details

Coordinator
International Programme on Chemical Safety (IPCS)
World Health Organization
20 Avenue Appia
CH-1211 Geneva 27
SWITZERLAND

Tel: +41 22 791 3590
Fax: +41 22 791 4848
E-mail: ipcsmail@who.int
Web site: <http://www.who.int/pcs>

* Joint FAO/WHO Meeting on Pesticides Residues

** Joint FAO/WHO Expert Committee on Food Additives