

Environmental Health Update

Sustainable Development and Healthy Environments



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Focus of the month

Mercury – advocacy towards a comprehensive ban!

Environmental mercury levels today are three times what they were at the onset of the industrial age¹. It is in our air, our soil, our water, our food – there to be breathed in or ingested². Naturally occurring mercury is being mined and used in the manufacture of health equipment we use in



Workplace exposure to mercury.

our everyday life, and in various industrial processes that produce the goods and services that make our lives more comfortable. But our workplaces expose us to this hazard, both through direct contact and inhalation. We also ingest it in food in the fish we catch from our oceans, much to the detriment of the economy of many ocean-resource-dependent countries when these levels are trade restrictive.

In this discussion on curbing the use of mercury in our daily life, some understanding of the benefits and risks of this use is essential. In

the short run, it is the benefits that we are concerned with: the gold we wear brings us pride, the diagnostic equipment is necessary for monitoring our health, amalgam fillings help repair our decaying teeth, we have more food to eat because of biocides used in agriculture, more coal to burn for our energy needs, fluorescent lights to brighten up our world and batteries to keep our electrical and electronic equipment going. But mercury is subject to significant international use and commerce, and until someone shows us that the risks outweigh the benefits, we usually go along, oblivious.

Thus, we need to look at all the angles that will help us turn the tide on the use of mercury in our lives. There is truth in the saying that only when we get sick do we realize the value of health. But we cannot wait for everyone to get sick from accumulating mercury toxicity; we need to show the evidence of the potential for that eventuality. The fact is that mercury exposure has serious health effects. It is highly neuro-toxic, especially to the developing brain; the fetus, the newborn and young children are most susceptible³. We are now aware that even current levels of exposure can produce toxic effects in these and other vulnerable groups, and recent studies show that there are *no* thresholds of mercury for safe exposure⁴. Some other metals have micronutrient benefits for us, but mercury has no such benefit – only risk. As with other potentially harmful chemicals, mercury has been responsible for human tragedies, such as the

¹ Eighth International Conference on Mercury as a Global Pollutant (2006). The Madison declaration on mercury. <http://www.mercury2006.org/portals/31/DeclarationNontechnicalSummaries.pdf>

² United Nations Environment Programme Global assessment of mercury. <http://www.chem.unep.ch/MERCURY/Report/Key-findings.html>

³ International Programme on Chemical Safety (IPCS) (2003) Concise International Chemical Assessment Document 50. <http://www.who.int/ipcs/publications/cicad/en/cicad50.pdf>

⁴ World Health Organization (2005) Mercury in Health Care – Policy Paper. http://www.who.int/water_sanitation_health/medicalwaste/mercury_polpaper.pdf

⁵ Minamata Disease The History and Measures 2002 Environmental Health Department, Ministry of the Environment, Japan. <http://www.env.go.jp/en/chemi/hs/minamata2002/>

Highlights

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Minamata Bay incident⁵ and food grain poisoning in Iraq⁶. Few as they may be (compared to other chemicals or agents), or too far back in our memory, we should be aware that this may only be the tip of the iceberg, for given the insidious nature of mercury accumulation, the tragedy may be waiting unseen, ready to be unleashed come the right tipping point. An increasing number of studies are discovering various aspects of mercury usage and exposure pathways, and also scientifically establishing the social and occupational groups being exposed to its hazards.

Intervention to curb the use of mercury is imperative. For such reductions in the use, release or exposure to mercury, action would be needed both at local and global levels, because local release will contribute to the global burden. These vapours know no borders. Thus, efforts to phase out and eliminate this deadly metal will yield results only if all nations cooperate in this effort through curbing release; the adoption of alternatives to mercury in our health diagnostics and industrial processes; and appropriate legislation framed for the regulation and enforcement of the practices.

Fortunately, we are already seeing serious evidence of this happening. In July 2007, the European Parliament passed a resolution seeking to ban trade in mercury by the year 2010⁷. It is a landmark move, as Europe has traditionally been the largest exporter of mercury. This indicates that, as this decision finds implementation on the supply side, the sources of mercury for products and services will dry up. Countries such as India and other larger



Gold mining in Indonesia – Washing mercury amalgam in running water.

users must seek ways to manage the present demand by finding suitable alternatives to mercury. We must quickly move towards a comprehensive multidimensional view of mercury to facilitate its phasing out across the full spectrum of its uses, recognizing the urgency of the issue and seeking to convey this urgency to planners and regulators. And we need a judicious mix of trade restrictions that supports public health, as well as robust mechanisms of regulation and enforcement.

But of course, business interests are often seen to be in conflict with health issues. This is the case with globalization of trade, climate change, tobacco and several other areas where public health concerns are at the point of being sacrificed on the altar of trade interests. More often than not, it is a constant battle to demonstrate with proof that indeed, health is being sacrificed. Perhaps this is a battle that must go ever on as part of the nature of the world – a duality that is part of our very makeup. All the more reason that we must persevere!

⁶ Bakir F, Damluji SF, Amin-Zaki L, et al. Methylmercury poisoning in Iraq. *Science* 1973;181:230-41.

⁷ EU Parliament press service. http://www.europarl.europa.eu/news/expert/infopress_page/064-8949-190-07-28-911-20070706IPR08897-09-07-2007-2007-false/default_en.htm

SDE News

WHO releases new policy paper on Mercury

The World Health Organization has released a new policy paper entitled “Mercury in Health Care”, which summarizes the problem of mercury in the health-care sector and recommends strategies for addressing the problem. It also recognizes the occupational hazard from exposure to mercury, and the need for countries to adopt goals and take actions to protect populations that are at risk. (See website http://www.who.int/water_sanitation_health/medicalwaste/mercurypolpaper.pdf).

Kolkata Workshop recommends pepped up institutional collaboration for arsenic mitigation

An intercountry workshop on Institutional Collaboration for Arsenic Mitigation was organized by WHO in Kolkata (India) from 11 to 13 September 2007. The workshop focused on preventing and mitigating arsenicosis by strengthening institutional collaboration at the national and local levels. It reviewed the effectiveness of existing approaches to assess and mitigate health impacts from arsenicosis, identified strengths and challenges in the existing institutional mechanisms for collaboration and recommended more strategic collaborative approaches for effective implementation of arsenic mitigation at the local



level. Senior professionals, doctors and engineers working in arsenic mitigation programmes from Bangladesh, Myanmar, India, Nepal, and Thailand and NGOs from Bangladesh, India and Nepal participated in the workshop. For details, please contact Ms Payden at the email address payden@searo.who.int.

UNFCCC workshop calls for coherence in adaptation practices

The United Nations Framework Convention on Climate Change (UNFCCC) workshop on "Adaptation planning and practices under the Nairobi Work Programme (NWP) on impacts, vulnerability and adaptation to climate change" was held in Rome, from 10-12 September 2007. The event was attended by 150 experts from all over the world, with representation of governmental, intergovernmental and nongovernmental organizations. Participants shared experiences in adaptation planning and practices in the areas of agriculture and food security, water resources, coastal zone and health, and on how to integrate and coordinate adaptation practices across different sectors.

EH NEWS

FAO and WHO urge all countries to strengthen their food safety systems

In their joint press release dated 19 July 2007, the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) urged all countries to strengthen their food safety systems and to be more vigilant to deceptive practices of food producers and traders. In the recent past, there have been incidents such as the discovery of industrial chemical melamine in animal and fish feed and the unauthorized use of veterinary drugs in intensive aquaculture. Such actions will undermine health and negatively affect international trade. A combination of ignorance and willful fraudulent use of

Alexander Hildebrand, Environmental Health Adviser (WHO/SEARO), represented WHO at the workshop. He highlighted WHO's contributory role to the NWP, particularly the provision of useful socioeconomic health information derived from WHO's climate variability assessments. A concluding highlight was that WHO should consider UNFCCC NWP as the global framework for climate change adaptation and to coordinate with country UNFCCC focal points in preparing and implementing the National Adaptation Programmes for Action (NAPA). Bettina Menne, Medical Officer, Global Change and Environment, (WHO/EURO) also attended. Details are available at http://unfccc.int/adaptation/sbsta_agenda_item_adaptation/items/3633.php.

National workshop on reducing dependency on mercury: Usage, processes and impacts in India

A national workshop on mercury was organized by Toxics Link on 27-28th September 2007, bringing together various stakeholders to promote exchange of information on mercury usage in India, and highlighting possibilities for mercury reduction and substitution. Representatives from government, pollution control boards, international experts (WHO, EU, USEPA), officials from health care facilities and NGOs participated. His Excellency Lars-Olof Lindgren, Ambassador of Sweden in India, and Mr R K Vaish, Jt. Secretary, Ministry of Environment and Forest, Government of India, were the chief guest and guest speaker respectively. Dr Abdul Sattar Yoosuf, Director, Department of Sustainable Development and Healthy Environments, represented SEARO and delivered a keynote address on 27 September 2007. Details are available at the website <http://toxicslink.org>.

ingredients are causes of these incidents. Such food safety incidents of international significance are regularly shared with countries through the International Food Safety Authorities Network (INFOSAN) {http://www.who.int/foodsafety/fs_management/infosan/en/}.

FAO and WHO are supporting national governments in improving the institutional setup and the performance of food inspection, enforcement, laboratory analysis and diagnosis, certification, foodborne disease surveillance, emergency preparedness and response. They also provide scientific advice on many food safety issues such as food additives, chemical and microbiological contaminants and agro-chemical residues. Their flagship collaborative mechanism, the Codex Alimentarius Commission, helps to develop science and risk-based food safety standards that can be used as a reference in international trade and

as models for countries to use in their legislation. The press release is available at the website <http://www.who.int/mediacentre/news/releases/2007/pr39/en/index.html>.

WHO/PHE publication gets BMA accolade



Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease was one of the four WHO publications to win the British Medical Association's annual Medical Book Competition held

in London in September 2007. It was "highly commended" under the section "Public Health". The competition aims at encouraging and rewarding excellence in medical publishing and gives appraisals of all entries, on a scale of poor to excellent. Fourteen WHO publications were rated as very good or excellent. Appraisals are conducted by experts in the field who examine the entries on qualities including accuracy of subject matter, usefulness and quality of presentation. Further details available at the website [http://www.bma.org.uk/ap.nsf/Content/LIB2007WinnersBookCompetition#Primary healthcare](http://www.bma.org.uk/ap.nsf/Content/LIB2007WinnersBookCompetition#Primary%20healthcare).

Visits and missions

International training for disaster risk reduction

An International Training Consortium for Disaster Risk reduction has been established by the Ministry of Health, Indonesia in collaboration with various universities and in close cooperation with national and international organizations and institutes and with the support from WHO, Japan International Cooperation for Welfare Services (JICWELS) and other sponsoring agencies. The launching ceremony of the consortium and the international seminar on "Building Capacity for Disaster Risk Reduction" was held from 17 to 19 September 2007 in Makassar, Indonesia. WHO SEARO was represented by Dr Abdul Sattar Yoosuf, Director, Department of Sustainable Development and Healthy Environments (SDE).

Sri Ramachandra University designated as WHO Collaborating Centre for occupational health

Sri Ramachandra University, Porur, Chennai, India, was recently designated as WHO Collaborating Centre for Research and Training in Occupational Health, initially for a period of four years. The centre was formally inaugurated on 19 September 2007 by the Honourable Union Health Minister Dr A Ramadoss in a formal function. Among those present were Dr Salim Habayeb, WHO Representative to India, Dr Gerry Eijkemans, Scientist, Occupational and Environmental Health, WHO/HQ and Dr Habibullah Saiyed, Regional Focal Point for Occupational and Environmental Health, WHO/SEARO. Details about Sri Ramachandra University are available at the website www.srmc.edu.

SDE welcomes new colleagues



Mr Jose Hueb joined WHO Maldives on temporary appointment up to 5 October 2007 to help the Maldives government in drafting a National Master Plan on Water and Sanitation focussing on assessment of access to drinking water and sanitation services (with an insight into water resources management), an assessment of the overall drinking water and sanitation sector and a framework for action. His email address is josehueb@gmail.com.



Mr Jan Arien Speets joined WHO Indonesia office as Environmental Health Adviser (temporary appointment) for a period of three months (11 September – 15 December 2007). He will facilitate the

implementation of the WHO/Government collaborative environmental health activities in Indonesia. His assignment will bridge the time gap left after the retirement of Shamsul Huda in May 2007, until a new advisor is appointed. His email address is Speetsj@who.or.id.



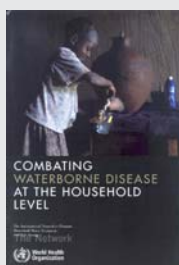
Mr Ismail Iriani Malik joined WHO Timor-Leste as Temporary International Professional-Environmental Health from 16 September – 15 December 2007. He will provide technical assistance to Ministry of Health in defining duties and responsibilities of Ministry of Health staff for the newly established National Sanitary Authority; developing strategic directions and steps required to be undertaken by this agency; and finalizing the national strategic document on National Sanitary and Food Safety.

Upcoming events

- World Toilet Summit 2007, organized by the Sulabh International Social Service Organization with the support from the Ministry of Housing and Urban Poverty Alleviation, Government of India, 31 October–3 November 2007, New Delhi, India. Details available at www.worldtoiletsummit2007.org
- First meeting of WHO's Foodborne Disease Burden Epidemiology Reference Group (FERG) to be held in WHO/HQ Geneva from 26-28 November 2007. http://www.who.int/foodsafety/foodborne_disease/ferg_advisers/en/
- WHO Regional Workshop: "Building Capacity for Implementing Sound Health Care Waste Management in SEAR countries", MS Ramaiah Medical College, Bangalore, India, 17–19 December 2007. For details contact Alexander von Hildebrand (hildebranda@searo.who.int).
- WHO Regional Workshop on Climate Change and Human Health in Asia: "From Evidence to Action", Bali, Indonesia, 10–12 December 2007. For details contact Alexander von Hildebrand (hildebranda@searo.who.int).
- National workshop: "Protecting Human Health from Climate Change", Jakarta, Indonesia, 14 and 15 November 2007. For details contact Jan Speets (speetsj@who.or.id).
- National workshop: "Climate Change and Health Impacts", Dhaka, Bangladesh, 26-27 November 2007. For details contact Dr Andrew Trevett (trevetta@searo.who.int).
- National Nepal Consultation on "Climate Change and Human Health in Nepal: Vulnerability and Impact, Adaptation and Mitigation", Kathmandu, Nepal, 17–19 December 2007. For details contact Han Heijnen (hanheijnen@gmail.com).
- WHO Intercountry Workshop for Healthy Settings Coordinators, Malé, Maldives, 13–15 November 2007. For details contact Dr A Sattar Yoosuf (yoosufa@searo.who.int).
- WHO Bi-Regional Workshop on Strengthening Occupational Health and Safety, Kuala Lumpur, Malaysia, 12-14 November 2007. For details contact Dr Habibullah Saiyed (saiyedh@searo.who.int).
- WHO Intercountry Consultation on Reducing Workplace Exposure through Risk Management Toolkit, Chennai, India, 19-22 November 2007. For details contact Dr Habibullah Saiyed (saiyedh@searo.who.int).

Publications and Learning Materials

Combating waterborne disease at the household level



This document reviews the case for managing water quality in the home, describes the International Network to Promote Household Water Treatment and Safe Storage and its objectives, gives a brief overview of low-cost technologies, and outlines some of the implementation challenges that lie ahead. The full document is available at the website http://www.who.int/household_water/advocacy/combating_disease/en/.

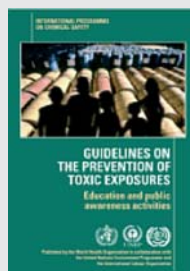
Environmental health impacts from exposure to metals: Report of a Joint Interregional Workshop, Shimla, India



This report is based on a three-day deliberation held among 50 participants from 12 countries at an interregional workshop on heavy metals in June 2005. This workshop was jointly sponsored by the Indian Council of Medical Research (ICMR),

New Delhi, USA Embassy (New Delhi), The Centres for Disease Control and Prevention (CDC), Agency for Toxic Substances and Disease Registry (ATSDR), USA and the World Health Organization, Regional Office for South-East Asia (WHO/SEARO). It facilitated sensitization of health professionals and policy-makers in South Asia on the public health dimensions of environmental and human health impacts of various metals. Complete report available at the website http://www.searo.who.int/en/Section23/Section1001/Section1110_11588.htm.

Guidelines on the prevention of toxic exposures



These guidelines summarize the active and passive strategies that can be used to promote chemical safety, outline the planning process and describe how to communicate safety and poisons prevention messages effectively. They will help governments, national agencies and communities to plan, carry out and

evaluate education campaigns addressed to the public, as well as other activities to promote safe use of chemicals and prevention of poisoning. Details are available at the website http://www.who.int/ipcs/poisons/prevention_guidelines/en/index.html.

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