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**Intergovernmental negotiating committee  
to prepare a global legally binding instrument  
on mercury**

**Third session**

Nairobi, 31 October–4 November 2011

Item 3 of the provisional agenda\*

**Preparation of a global legally binding instrument  
on mercury**

**Information submitted by the World Health Organization**

**Note by the secretariat**

The secretariat has the honour to provide, in the annex to the present note, an annotated bibliography of new information on mercury available from the World Health Organization (2010/2011). The information has been reproduced as received, without formal editing.

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\* UNEP(DTIE)/Hg/INC.3/1.

## Annex



## Annotated Bibliography of New Information on Mercury Available from the World Health Organization (2010/2011)

*Prepared by WHO, October 2011 as a resource for the International Negotiation Committee (INC) on the preparation of a legally binding treaty on mercury.*

1. The present document provides an annotated bibliography of new information on mercury available from the World Health Organization (WHO) since INC1. The WHO submission for INC1 containing information on use of mercury in health care, related WHO activities, resources and risk assessment methodologies can be found at: <http://www.unep.org/hazardoussubstances/LinkClick.aspx?fileticket=2blN4eJhVDI%3d&tabid=4325&language=en-US>

### **Thiomersal in Vaccines: Information requested by the INC**

2. In fulfilment of a request of INC2 and at the invitation of the UNEP Secretariat, WHO prepared information on thiomersal in vaccines. This document is provided in an Annex in the INC3 Meeting Document: UNEP(DTIE)/Hg/INC.3/6. [http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/INC3/3\\_6\\_health.pdf](http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/INC3/3_6_health.pdf)

### **Thermometers and Sphygmomanometers**

3. Replacement of mercury thermometers and sphygmomanometers in health care: Technical guidance. WHO 2011. This short guide is designed to provide step-by-step instructions for the safe substitution of non-mercury thermometers and sphygmomanometers in health-care settings. It identifies available resources that support the equivalent accuracy and comparable clinical utility of the substituted products, while protecting health-care workers and the environment. It is designed for professionals responsible for institutions or ministries desiring to switch to safer, non-polluting technologies in health care. Available at: [http://whqlibdoc.who.int/publications/2011/9789241548182\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241548182_eng.pdf)
4. A new solar-powered blood pressure measuring device for low-resource settings. Parati G, Kilama MO, Faini A, Facelli E, Ochen K, Opira C, Mendis S, Wang J, Atkins N, O'Brien E. Hypertension. 2010 Dec;56(6):1047-53. Epub 2010 Nov 8. WHO provided technical support to develop and validate an accurate and affordable solar-powered semi-automatic blood pressure measurement device for resource-constrained settings. <http://hyper.ahajournals.org/content/early/2010/11/08/HYPERTENSIONAHA.110.160408>



5. WHO-Health Care Without Harm Global Initiative to substitute mercury thermometers and sphygmomanometers in health care. Regular updates on country progress and events, including an update for INC3:  
<http://www.mercuryfreehealthcare.org/>

### **Dental Amalgam and Alternative Dental Materials**

6. Future use of materials for dental restoration. Report of meeting convened at WHO HQ, Geneva, Switzerland 16th to 17th November 2009 (WHO, 2010). The meeting concluded that it may be prudent to consider 'phasing down' instead of 'phasing out' of dental amalgam at this stage. A multi-pronged approach with short-, medium- and long-term strategies should be considered. Alternatives to dental amalgam exist but the quality of such materials needs to be further improved for use in public health care. The meeting suggested important strategies that can be put in place while waiting for new materials to be developed.  
[http://www.who.int/entity/oral\\_health/publications/dental\\_material\\_2011.pdf](http://www.who.int/entity/oral_health/publications/dental_material_2011.pdf)
7. Toxicological and health aspects of bisphenol A (BPA). Report of a FAO/WHO joint expert meeting 2-5 November 2010, and Report of a stakeholder meeting 4 November 2010. The meeting concluded that BPA levels in saliva from dental materials were low. The Expert Meeting determined that there was no need to collect additional data on BPA levels from dental materials, as exposure is short term and unlikely to contribute substantially to chronic exposure. Background papers provide additional detail on occurrence of BPA from dental materials.  
<http://www.who.int/foodsafety/chem/chemicals/bisphenol/en/index.html>

### **Coal Consumption**

8. Estimating the Global Public Health Implications of Electricity and Coal Consumption. Gohlke JM, Thomas R, Woodward A, Campbell-Lendrum D, Prüss-Üstün A, et al. 2011. Environ Health Perspect 119(6): doi:10.1289/ehp.1002241. This study by scientists from NIEHS, WHO and University of Auckland concluded that: Increased electricity consumption in countries with infant mortality less than 100/1,000 live births<sup>1</sup> does not lead to greater health benefits, whereas coal consumption has significant detrimental health impacts.  
<http://ehp03.niehs.nih.gov/article/attachment.action;jsessionid=55F14BCA5E4AA2385E736A91B4E7638F?uri=info%3Adoi%2F10.1289%2Fehp.1002241&representation=PDF>
9. Health in the Green Economy: Household Energy Sector in Developing Countries. WHO, 2011. Significant gains for both health and climate can be attained by providing access to clean cookstoves and fuels for the 2.7 billion people still dependent on the use of rudimentary, traditional biomass and coal stoves. The use of

<sup>1</sup> In 2009 almost all countries had an infant mortality rate less than 100/1,000 live births.  
[http://www.who.int/entity/whosis/whostat/EN\\_WHS2011\\_Full.pdf](http://www.who.int/entity/whosis/whostat/EN_WHS2011_Full.pdf). World Health Statistics, WHO, 2011.



cleaner household energy technologies to reduce climate change represents a major opportunity that is not been adequately explored.

[http://www.who.int/entity/hia/brochure\\_hhe.pdf](http://www.who.int/entity/hia/brochure_hhe.pdf) English

[http://www.who.int/entity/hia/hgebrief\\_hh\\_sp.pdf](http://www.who.int/entity/hia/hgebrief_hh_sp.pdf) Spanish

10. WHO Database: outdoor air pollution in cities, released 26 September 2011. WHO compilation of air quality data from nearly 1100 cities in 91 countries, along with associated burden of disease analysis. The main findings were:

- Persistently elevated levels of fine particle pollution are common across many urban areas. Fine particle pollution often originates from combustion sources such as power plants and motor vehicles.
- The great majority of urban populations have an average annual exposure to PM10 particles in excess of the WHO Air Quality guideline recommended maximum level of 20 µg/m<sup>3</sup>. On average, only a few cities currently meet the WHO guideline values.
- For 2008, the estimated mortality attributable to outdoor air pollution in cities amounts to 1.34 million premature deaths. If the WHO guidelines had been universally met, an estimated 1.09 million deaths could have been prevented in 2008. The number of deaths attributable to air pollution in cities has increased from the previous estimation of 1.15 million deaths in 2004. The increase in the mortality estimated to be attributable to urban air pollution is linked to recent increases in air pollution concentrations and in urban population size, as well as improved data availability and methods employed.

[http://www.who.int/mediacentre/news/releases/2011/air\\_pollution\\_20110926/en/index.html](http://www.who.int/mediacentre/news/releases/2011/air_pollution_20110926/en/index.html)

[http://www.who.int/phe/health\\_topics/outdoorair/databases/en/index.html](http://www.who.int/phe/health_topics/outdoorair/databases/en/index.html)

### **Skin Lightening Products**

11. Mercury in Skin Lightening Products. WHO Information Sheet, 2011. This short information sheet describes the health impacts, use and availability of mercury skin lightening products as well as existing regulations. It concludes that mercury skin lightening products are hazardous to health, and although banned in many countries remain available to consumers. English. French and Spanish available soon.

[http://www.who.int/entity/ipcs/assessment/public\\_health/mercury\\_flyer.pdf](http://www.who.int/entity/ipcs/assessment/public_health/mercury_flyer.pdf)

### **Children's Exposure to Mercury Compounds**

12. Children's Exposure to Mercury Compounds. WHO, 2010. This document is designed to inform and educate health professionals about children's exposure to mercury compounds and its serious consequences. The document emphasizes the critical importance of primary prevention.

[http://whqlibdoc.who.int/publications/2010/9789241500456\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241500456_eng.pdf)



## Human Biomonitoring and Indicators

13. Report on indicators to evaluate and track the health impacts of mercury and identify vulnerable populations. UNEP(DTIE)/Hg/INC.2/5, prepared by the World Health Organization, 2010. Available in all UN languages.  
<http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC2/INC2MeetingDocuments/tabid/3484/language/en-US/Default.aspx>
14. Report on information on harmonized systems for measuring mercury body burden. UNEP(DTIE)/Hg/INC.2/6. Prepared by the World Health Organization, 2010. Available in all UN languages.  
<http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC2/INC2MeetingDocuments/tabid/3484/language/en-US/Default.aspx>
15. Tools for monitoring Parma Health and Environment Ministers Conference commitments. WHO/EURO, 2010. Experts from 35 countries of the WHO European Region and three international institutions defined the minimum set of indicators for monitoring the commitments made at the Fifth Ministerial Conference on Environment and Health in Parma, Italy, to reduce the health effects of environmental hazards in children. Using a set of pre-defined criteria, such as public health impact, feasibility, interpretability, data comparability and sustainability of data collection efforts, the meeting selected 18 environmental health indicators addressing five time-bound Parma Conference commitments. These indicators include mercury hair analysis. Current and planned European studies are described.  
[http://www.euro.who.int/\\_data/assets/pdf\\_file/0019/134380/e94788.pdf](http://www.euro.who.int/_data/assets/pdf_file/0019/134380/e94788.pdf) English  
[http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/135662/e94788R.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/135662/e94788R.pdf) Russian

## Additional Materials to be released in advance of INC3

16. Prior to INC3, WHO will communicate key public health messages through press briefing, a story on the WHO website home page, and new WHO Fact Sheets and "Questions and Answers" on mercury issues.

## Further Information Resources:

WHO Department of Public Health and Environment Web Portal on Mercury  
[http://www.who.int/ipcs/assessment/public\\_health/mercury/en/index.html](http://www.who.int/ipcs/assessment/public_health/mercury/en/index.html)

WHO Web Portal on Vaccines  
<http://www.who.int/topics/vaccines/en/>

WHO Web Portal on Indoor Air Pollution and materials on household energy  
<http://www.who.int/indoorair/en/index.html>

**WHO Contact:** [ipcsmail@who.int](mailto:ipcsmail@who.int)