

E-WASTE: PROTECTING THE HEALTH OF CHILDREN

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WHY E-WASTE AND CHILD HEALTH?

E-waste materials are not only a source of environmental contamination but may also pose significant human health risks if improperly managed



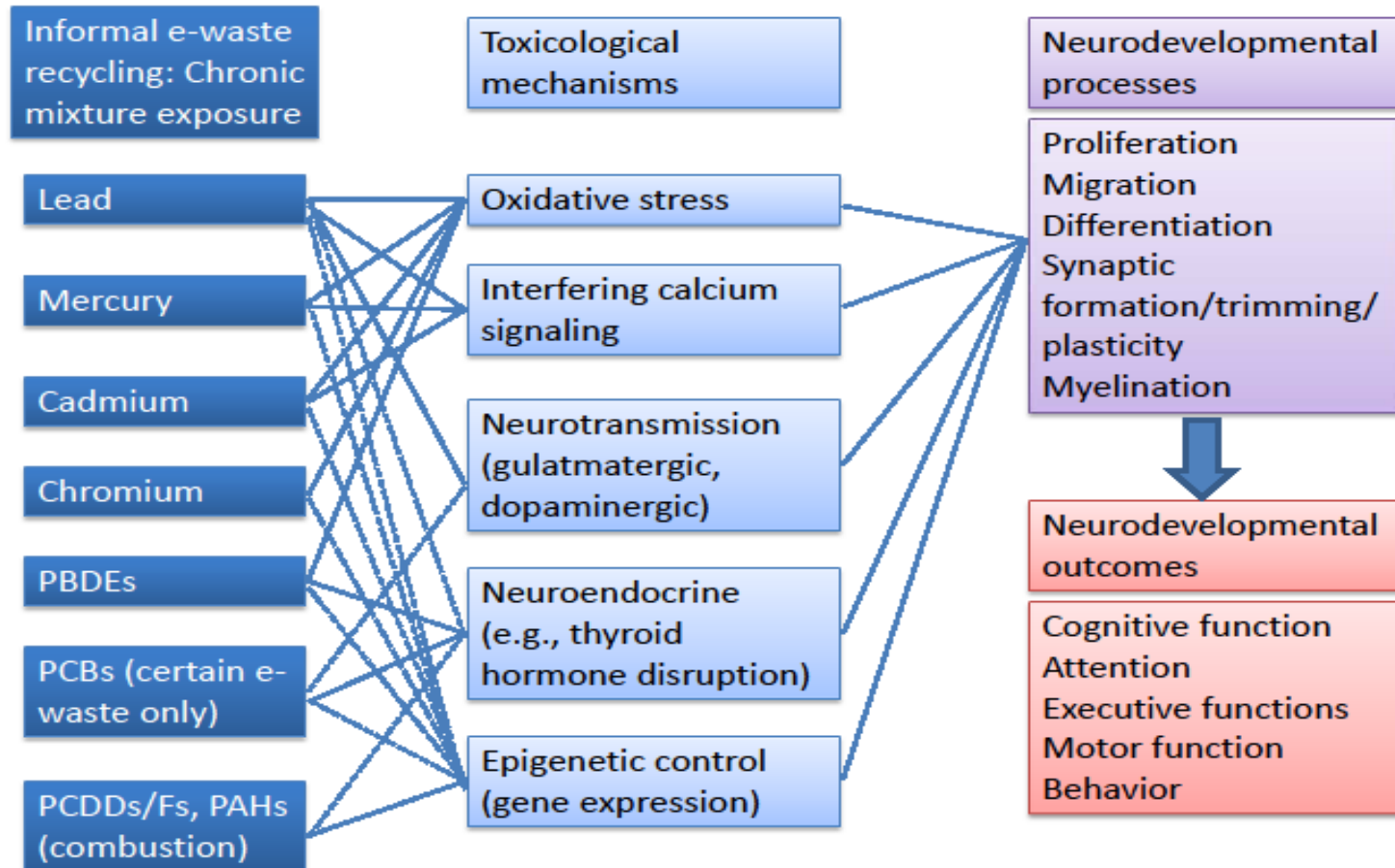
WHY E-WASTE AND CHILD HEALTH?

- A systematic review led by WHO and WHO collaborating centres looking at health outcomes related to e-waste exposure, showed that increases in spontaneous abortions, stillbirths, and premature births, and reduced birth weights and birth lengths are associated with exposure to e-waste



WHO

PROTECTING CHILDREN'S BRAINS FROM MULTIPLE NEUROTOXICANTS



Chen A et al.: Developmental neurotoxicants in e-waste: an emerging health concern. *Environmental Health Perspectives* (2010) 119(4):431–438; doi: 10.1289/ehp.10024

Child Health and E-Waste – Exposures Latin America – An Inter-Agency report



Ceppi, Corra

- Child workers engaged in e-recycling
- Secondary exposures of children
 - Home-based family workshops
 - Parental take-home exposures
 - Schools, homes, play areas near dump sites (that include e-waste)
 - Breastfeeding and transplacental exposures
 - Contaminated water and foods

In Uruguay: 24 % of children with blood lead levels higher to 5 µg/dl – burning of cables in neighboring area

WHY DO WE NEED TO ACT NOW

SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages.

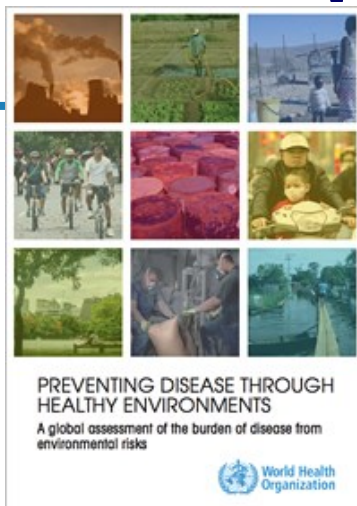
Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

SDG Goal 12: Ensure sustainable consumption and production patterns.

Target 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life-cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.



WHY DO WE NEED TO ACT NOW?



New estimates: 12.6 million people died as a result of living or working in an unhealthy environment in 2012 – nearly 1 in 4 global deaths. Children and older adults are the most affected



World Health Assembly 2016: Role of health sector in the sound management of chemicals

Green economy and health

Urban health

National Environmental Health Action Plans



AIM OF THE WHO INITIATIVE

To advance the work towards better defining the exposures and related factors that can lead to health risks and allow identification of measures to protect children and other vulnerable populations from environmental health risks in e-waste



E-WASTE & CHILD HEALTH

- WHO, WHO collaborating centers have identified through an initial consultations (2013, 2016) urgent gaps
 - identifying needs at local level
 - communicating the problem to health actors
 - developing training methods and tools for health professionals
 - encouraging specific research about e-waste
 - gathering interested stakeholders to move this issue forward around interventions that can improve the health of those affected.



TASKS ACCOMPLISHED

Tools for reaching the health sector

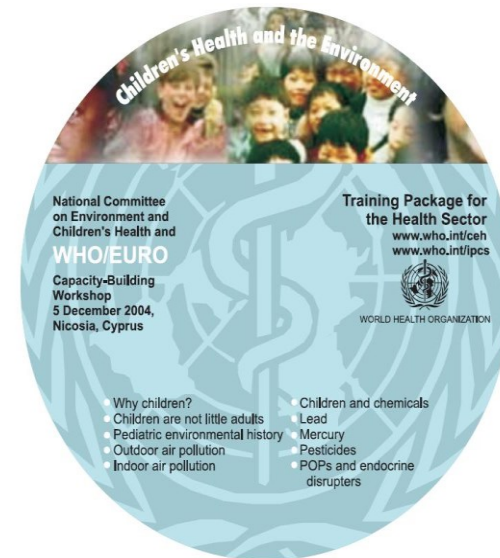
Development of an e-waste and child health “train the trainers” peer-reviewed module of the WHO Training Package on Children's Environmental Health for health professionals (WHO CC Uruguay)

Technical information

Series of publications on child health, including a systematic review
Developed with collaborating centers and health partners

Information dissemination

through WHO website, WHO/UNEP, newsletter, survey, reports



NEXT STEPS

- Communications: raising awareness on health impacts
- Networking with relevant stakeholders to protect health
- Bringing health to interventions by
 - Strengthening the monitoring of exposure to e-waste, and related health impacts particularly among children and workers
 - Providing information for the protection vulnerable populations from e-waste health impacts
 - Increasing capacity of the health sector to manage risks related to e-waste and work multi-sectorally

WORKING TOGETHER TO PROTECT THE HEALTH OF OUR CHILDREN



APPENDIX

WHO resources

Main publications of WHO and WHO network of collaborating centres on children's environmental health on e-waste and child health

- Grant K et al. Health consequences of exposure to e-waste: a systematic review on health effects of e.waste. The Lancet.
[http://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X\(13\)70101-3.pdf](http://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(13)70101-3.pdf)
- Bruné MN et al. Health effects of exposure to e-waste. Lancet Global Health. Vol1, 2, e70, August 2013 [http://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(13\)70020-2/fulltext?rss=yes](http://www.thelancet.com/journals/langlo/article/PIIS2214-109X(13)70020-2/fulltext?rss=yes)
- Heacock M et al . E-Waste and Harm to Vulnerable Populations: A Growing Global Problem. Environ Health Perspect. 2015 Sep 29.
<http://www.ncbi.nlm.nih.gov/pubmed/26418733>
- Perkins D et al. E-waste: a global hazard., Ann Glob Health. 2014 Jul-Aug;80(4):286-95.
<http://www.ncbi.nlm.nih.gov/pubmed/25459330>
- Sustainable Management of Waste Electrical and Electronic Equipment in Latin America. ITU in collaboration with WHO and many UN partners.2015

WHO resources

Websites

- WHO e-waste and child health website <http://www.who.int/ceh/risks/ewaste/en>
- e-waste and child health network website. WHO's collaborating centre, Children's Environmental Health Program, Brisbane - <https://www.gcmri.uq.edu.au/chep/e-waste-network.aspx> includes the Geneva Declaration on e-waste and child health

Newsletter

- WHO/UNEP Children's Environmental Health monthly newsletter with specific section on e-waste (and child health)
<http://www.who.int/heca/infomaterials/hecanet/en/>

Initial UNU/WHO survey

- <http://www.step-initiative.org/files/step/downloads/UNU%20&%20WHO%20Survey%20on%20E-waste%20and%20its%20Health%20Impact%20on%20Children%20-%205%20August%202013.pdf>