

Mercury Products in Health Care

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Health effects: exposure to mercury

- Mercury is toxic to human health
- Affects the nervous, gastrointestinal and immune systems, lungs and kidneys
- Harmful to the development of the child *in utero* and early in life: children are especially vulnerable
- Exposure occurs through inhalation, ingestion, skin
- In subsistence fishing populations, between 1.5/1000 and 17/1000 children showed cognitive impacts



Mercury products in healthcare



- Blood pressure measuring devices (BPMD)
 - WHO Recommends phase-out of mercury BPMD
 - Affordable solar-powered device, field tested and validated by WHO
 - Will take time to replace mercury BPMD
 - Safe disposal is important
 - Recommend limited number retained for validation and calibration purposes in designated laboratories

Thermometers

- Breakage results in exposure of patients, health care workers, etc and creates hazardous waste
- WHO recommends the use of mercury-free thermometers in health-care and domestic settings
- Affordable alternatives are available
- Safe disposal is important



Momentum growing to phase out mercury BPMD and thermometers

- European Union policy
- WHO-HCWH two year progress report
 - Argentina and Philippines have national policies
 - Four mega-cities' health systems phasing out mercury: Buenos Aires, Delhi, Mexico City and Sao Paulo
 - Fourteen additional countries are piloting mercury-free healthcare



WHO-HCWH Two Year Progress Report

Number of Hospitals in Developing Countries Committed or Already Mercury-Free	
Argentina	1722
Brazil	134
China	3
Chile	16
Costa Rica	5
India	1742
Mexico	40
Philippines	1847
South Africa	127
Total Hospitals	5636



Dental amalgam



- About 300 tonnes of mercury per annum
- Some countries, e.g. Denmark, Norway and Sweden have imposed tight restrictions on dental amalgam.
- However most countries still use dental amalgam as alternatives are more expensive
- Potential alternatives include glass ionomers and composites

WHO Expert Consultation November 2009

- In some cases amalgam is preferred choice for dental restoration, ie when there is excess moisture in the mouth, or there is a need for reduced placement time for a dental filling
- Recognized differences in needs of developed and developing world
 - Cost
 - In developing countries, shortage of dental materials would imply more tooth extractions, particularly for the poor and disadvantaged population groups



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- A global near term ban on amalgam would be problematic for public health and the dental sector, but phase down should be pursued by:
 - Promoting disease prevention and alternatives to amalgam
 - Research and development of cost-effective alternatives
 - Education of dental professionals and raising public awareness



Vaccine preservative

- Thiomersal preservative used in very limited quantities in vaccines and antivenom and antisera preparations
- Safety extensively studied and reviewed by WHO Global Advisory Committee on Vaccine Safety which did not find any safety grounds to change current practices
- Preservatives required for multidose inactivated vaccines to be kept open for several weeks
- Single dose more expensive and need additional cold storage space
- Multiple dose needed for vaccination campaigns



Mercury Containing Cosmetics



Mercury based soaps and lotions (marketed as skin lighteners) banned in some countries.

Action is needed in other countries to ensure these products are no longer available.

Conclusions

- Affordable alternatives for mercury BPMD and thermometers are available and should be implemented to avoid mercury exposure to workers, patients and the community.
- Alternatives to dental amalgam need to be promoted.
- Vaccine use is very small and is essential.
- Production and use of mercury containing cosmetics needs to be stopped.



Thank you

Please refer to WHO information provided in
UNEP(DTIE)/Hg/INC.1/INF/7
and documents at the health sector exhibit

For more information:

<http://www.who.int/ipcs/en/>

