

**Dhaka CSO Declaration for Mercury-Free Dentistry for Asia:
Asia, the largest population in the world, will phase out Amalgam by 2018**

The South and South East Asia Summit on Phasing Out Amalgam was held in Dhaka on 14 November 2014, bringing together with Dentists and NGO leaders from Bangladesh, India, Nepal, Pakistan, the Philippines, Sri Lanka and Thailand. They have adopted the Dhaka Declaration and now invite Dentists and NGO leaders from across Asia to join as signatories.

Cognisant of the fact that mercury is used in dental amalgam, a restorative material that is approximately 50% elemental mercury,ⁱ and is a notorious heavy metal of global concern that is known to be a potent poison of the human nervous system.ⁱⁱ

Aware that dental mercury accounts for 10% of annual global mercury consumptionⁱⁱⁱ and 260-340 metric tons of mercury pollution around the world each year.^{iv}

Knowing that dental mercury enters the environment via many release pathways, polluting *air* via cremation, dental clinic releases, and sewage sludge incineration; *water* via human waste and dental clinic releases to septic systems and municipal wastewater; and *soil* via landfills, burials, and fertilizer.^v

Understanding that once dental mercury is in the environment, bacteria in soils and sediments may convert it to methyl mercury,^{vi} a highly toxic form that builds up in fish, shellfish and animals that eat fish, thereby making fish and shellfish the main sources of methyl mercury exposure to humans.

Aware of the existence of significant literature that show that methyl mercury can damage children's developing brains and nervous systems even before they are born.^{vii}

Recognising that in the dental workplace, uncontrolled mercury vapours are a major occupational risk, especially to young women of childbearing age,^{viii} *and that* amalgam is not consistent with modern dentistry; unlike less invasive mercury-free filling materials, amalgam placement requires the removal of a substantial amount of healthy tooth matter, which weakens the tooth structure and can lead to more expensive dental care later.^{ix}

Recalling that throughout the Minamata Convention negotiations, the Asia Region worked very hard to make sure that reduction in dental amalgam use specifically be included in the treaty, forcefully arguing for the phase out of amalgam generally and for an end to amalgam in children with milk teeth and the teeth of pregnant women specifically.

Applauding that with the newly-adopted Minamata Convention on Mercury, the world recognizes that dental amalgam is a major environmental pollutant and requires each participating nation “to phase down the use of dental amalgam.”^x

Considering the fact that Mercury-free dental restorative materials are far less expensive than dental amalgam when environmental and societal costs are factored in.^{xi}

Considering further that the costs of using mercury-free glass ionomers for Atraumatic Restorative Treatment or ART (including retreatment) is about half the cost of amalgam without retreatment, making this mercury-free technique significantly more affordable in low-income communities, particularly in areas without electricity or dental clinics.^{xii}

Noting that mercury-free dental restorative materials are effective according to the World Health Organization report *Future Use of Materials for Dental Restoration*, which says “recent data suggest that RBCs [resin-based composites] perform equally well” as amalgam^{xiii}— and offer additional oral health benefits because “Adhesive resin materials allow for less tooth destruction and, as a result, a longer survival of the tooth itself”.

Regretting the fact that pro-amalgam lobby groups view the Minamata Convention as the chance to profiteer in Asia by actually phasing *up* amalgam by promoting expensive amalgam equipment, such as separators.

Cognisant of the fact that, separators have no value in Asia as there is no infrastructure to collect and store the mercury from dental offices.

We the Dentists and NGOs that met in Dhaka this 14th day of November 2014, call upon

1. Asian Countries to declare that the children of Asia -- and all the people of Asia -- have a basic human right to mercury-free dental care and a mercury-free environment.
2. Asian Countries to work together and make Asia the most populated continent with mercury-free dentistry – considering that Asia is the most densely populated continent and the ongoing use of dental amalgam in Asia has the potential to cause more destruction to the environmental and human health than in any other continent.
3. Asian nations to adopt effective amalgam phase out strategies that have been proven in nations that have already phased out or significantly reduced dental mercury use by:
 - a. Raising awareness about dental mercury to parents, consumers, dental workers, health professionals, and educators.
 - b. Promoting the benefits of non-mercury dental restorative materials,
 - c. Encouraging government programs and insurance policies that favor non-mercury dental restorative materials,
 - d. Training dental professionals to use non-mercury dental restorative materials and techniques,
 - e. Stopping amalgam use in milk teeth (primary teeth),
 - f. Protecting dental workers from mercury vapors and exposure in the workplace,
 - g. Developing a national plan setting goals for minimizing and eliminating amalgam use,
 - h. Updating dental schools training to emphasize mercury-free dentistry, and
 - i. Moving hospitals to mercury-free health care services.
4. Asian Countries to impress upon the exporting nations and funding organisations to cease the toxic trade of dental mercury into Asia, and cease sending to Asia interest groups whose agenda is to phase *up* amalgam in Asia.

5. Asian Countries to oppose Minamata Convention funds being used to profit the separator industry or other foreign manufacturing interests seeking to phase up amalgam use in Asia.
6. Asian countries to reject the double standard mentality which infers that Asians must accept toxins that the rest of the world rejects.
7. All Asian Governments to form a united front for mercury-free dentistry in Asia.
8. Civil Society Organisations to promote and advocate for, in their countries, mercury-free dentistry as a route of expanding oral health care especially for children.

Asian Countries priorities in the phase out of mercury amalgam will be to;

1. Build strong public awareness and networks among Asian Countries in coordination with dental societies and associations, dentists, students, government ministries and civil society organisations.
2. Make it an immediate priority to stop the use of mercury amalgam in the treatment of children and pregnant women by June 2015.
3. Develop an alternative dental curriculum with a specific chapter on the dental restoration process of amalgam and its harm to dental staff, patients and the environment by 2015.
4. Pass national regulation to ban the use, import and sale of mercury amalgam by 2016-2018 as per country situation.
5. Promote alternative restoration materials and ensure they are affordable and accessible.

ⁱU.S. FDA, *Final Rule for Dental Amalgam*, <http://www.fda.gov/downloads/MedicalDevices/ProductsandMedicalProcedures/DentalProducts/DentalAmalgam/UCM174024.pdf>, p.86.

ⁱⁱ UNEP, <http://www.unep.org/chemicalsandwaste/Mercury/tabid/434/Default.aspx> (“Mercury is a notorious heavy metal of global concern and known to be a potent poison of the human nervous system since Greek and Roman times.”)

ⁱⁱⁱ UNEP/AMAP, *Technical Background Report to the Global Atmospheric Mercury Assessment* (2008), p.20

^{iv} Data from UNEP.

^v Concorde East West, *The Real Cost of Dental Mercury* (March 2012),

http://www.zeromercury.org/index.php?option=com_phocadownload&view=file&id=158%3Athe-real-cost-of-dental-mercury&Itemid=70

^{vi} <http://www.epa.gov/hg/exposure.htm>

^{vii} United States Environmental Protection

Administration, <http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/a640db2ebad201cd852577ab00634848!OpenDocument> (2010).

^{viii} Mahmood A. Khwaja and Maryum Shabir Abbasi, *Mercury Poisoning Dentistry: High level indoor air mercury contamination at selected dental sites*. REVIEWS OF ENVIRONMENTAL HEALTH (New York Academy of Sciences, April 2014)

^{ix} American Academy of Pediatric Dentistry, *Guideline on Pediatric Restorative Dentistry* (revised 2008)

(“Amalgam restorations often require removal of healthy tooth structure to achieve adequate resistance and retention.”); World Health Organization, *FUTURE USE OF MATERIALS FOR DENTAL RESTORATION* (2011),

http://www.who.int/oral_health/publications/dental_material_2011.pdf, p.16 (“Adhesive resin materials allow for less tooth destruction and, as a result, a longer survival of the tooth itself. Funding agencies should take the initiative and encourage the replacement of amalgam as the material of choice for posterior teeth with adhesive systems.”)

^x Minamata Convention (2013)

^{xi} Lars D. Hylander & Michael E. Goodsite, *Environmental Costs of Mercury Pollution*, *SCIENCE OF THE TOTAL ENVIRONMENT* 368 (2006) 352-370; Concorde East West, *The Real Cost of Dental Mercury* (March 2012), pp.3-4

^{xii} Pan American Health Organization, *Oral Health of Low Income Children: Procedures for Atraumatic Restorative Treatment (PRAT)* (2006), http://new.paho.org/hq/dmdocuments/2009/OH_top_PT_low06.pdf,

p.xii. (“The costs of employing the PRAT approach for dental caries treatment, including retreatment, are roughly half the cost of amalgam without retreatment. PRAT as a best practice model provides a framework to implement oral health services on a large scale, and it can reduce the inequities for access to care services.”); S.

Mickenautsch, I. Munshi, & E.S. Grossman, *Comparative cost of ART and conventional treatment within a dental school clinic*, *JOURNAL OF MINIMUM INTERVENTION IN DENTISTRY* (2009), <http://www.miseeq.com/e-2-2-8.pdf> (“ART is also a cost-effective means of oral health care within a modern dental clinic. The ART

approach can be undertaken at approximately 50% of the capital costs of conventional restorative dentistry.”)

^{xiii} World Health Organization, *FUTURE USE OF MATERIALS FOR DENTAL RESTORATION*

(2011), http://www.who.int/oral_health/publications/dental_material_2011.pdf, p.11