

English version: Submission of comments as the follow-up of the Minamata Convention's COP3 Decision about Dental Amalgam

By:

The African Region

To:

To the Secretariat, Minamata Convention on Mercury

Summary: The Africa Region has long been committed to phasing out amalgam use. As government officials in the Africa Region, we advise the Secretariat that mercury-free dental materials offer benefits to the Africa Region on many levels: more widespread oral health care, 21st century minimally-invasive dentistry, a cleaner environment, and a better public health system. For African budgets, too, they are better: Rather than spend millions of dollars of the infrastructure budgets on separators (it is worth to recall that currently, there is no dental clinic operating with separator in Africa as revealed by the survey performed by African Minamata Focal Points prior COP 3 in November 2017), operation maintenance, mercury-waste facilities, and transportation; rather than spend thousands of dollars per child on neurologically-damaged medical conditions . . . it is much wiser to choose the pollution-free option, with the much smaller costs of dental fillings and for one-time expenses to re-tool dental schools and do classes for dentists.

1. Mercury-free alternatives provide superior dentistry to rural Africa. Mercury-free alternatives like glass ionomer can be less expensive and more accessible than amalgam. Atraumatic restorative treatment (ART) was developed in Eighties in East Africa to address this weakness of amalgam, because (i) ART does not need electricity or expensive equipment; (ii) ART can address most cavities in children; and (iii) its clinics can be portable, reaching into remote villages. The World Health Organisation's Collaborating Centre for Oral Health Services Research praises ART in its training manual, which explains, "ART offers an opportunity for preventive and restorative dental treatment under field conditions where there is lack of electricity and modern dental facilities."¹¹

As we, African countries are now moving to the paradigm of prevention and no more through cure response in dental caries treatment, it is high time to spread prevention techniques using mercury-free alternatives. ART is one of the suitable methods to achieve this goal.

2. The cost of keeping amalgam is much greater than the transitional cost to mercury-free dentistry. To have amalgam-based dentistry will be very expensive: (1) continue amalgam means buying separators for every dentist, at 1000 to 2000 US dollars, and servicing them for hundreds of dollars per year; (2) building multi-million dollar mercury-waste facilities; (3) building a transportation infrastructure to get the mercury waste from dental clinics and hospitals to the waste facilities. It's important to note that these infrastructure costs will only catch the mercury waste from dental clinics; the mercury coming from human bodies during their lives and after burial or cremation will not be caught and will go into the environment.

By contrast, the cost to shift to alternatives – some of which cost more, some of which do not – is a far less costly approach for Africa, and much of it (adjusting dental schools and clinics) is a one-time expense.

3. Because of the environmental damage from amalgam's mercury, mercury-free alternatives cost much less. Amalgam's price is lower than composite only because the polluter does not pay – so we governments must pay for amalgam's environmental damage. Counting environmental damages, amalgam is must more expensive than composite.^[2] Not only is the environmental damage costly to abate, but the impact of environmental toxins are steeped in human tragedy, such as permanent brain damage to children from overexposure to mercury.

4. Mercury-free alternatives are a huge advantage in Africa to the environment and public health. The very reason for the Minamata Convention on Mercury is to transition mankind away from all major manmade uses of mercury. Mercury from amalgam poisons the water, the food chain, and the air. Who can doubt that each Region gains major environmental and public health benefits by switching from mercury-based to mercury-free medical devices?

5. For African dentists and African dental schools, mercury-free alternatives mean superior dentistry, 21st century dentistry, for this region. The governments work closely with, and consult with, dentists and dental schools. African dentists know how to use the alternatives, and in general prefer them; many of them have stopped using amalgam for a decade already. In all African capitals and major cities, we found mercury-free dentists who are able to share their knowledge on proper alternatives use to all dentists' generations. Amalgam is the one option that is not minimally-invasive; by removing good tooth matter, amalgam weakens tooth structure that leads to greater costs. For Africa, 21st century dentistry = minimally-invasive dentistry = mercury-free dentistry.

In addition to that, the Covid-19 pandemic we are all facing with has taught us how to limit our intervention in wet environment. Since mouth and nose aerosol have to be limited to prevent exposure to this virus, it means that dentists must work in the sense of reducing at minimum the destruction of dental material via drilling and others dental architecture design in wet condition. Thus, alternative use will allow this and protect dental personals, visitors from dental clinics from the virus contamination.

6. Mercury-free alternatives means Africa will not be the dumping ground for mercury amalgam, nor the “charity” center for other regions wanting to offload amalgam, nor a source for illegal gold mining. The Africa Region makes clear it does not intend to be the marketplace for products rejected elsewhere. The experience of lead paint – banned in the west while sold throughout Asia, Africa, and Latin American – must not be repeated. Likewise, charitable donations of undesirable amalgam – again, because they are not wanted in the sending nation – need to end.

How much illegal diversion of dental mercury to artisanal and small-scale gold mining is hard to quantify. Ending the trade of dental mercury will cut off one source of mercury, reducing the among of mercury that can devastate families living in artisanal gold-mining communities.

7. In the region famous for leapfrogging technologies, mercury-free alternatives are a prime example of skipping an unneeded step. Africa, the region famous for leapfrogging technologies, is prepared for mercury-free dentistry provides another example of Africa leapfrogging in technology. Africa will not go through the stage like the Europeans of amalgam for all, then mercury-free dentistry for all. Mercury-free dentistry implements the vision in 2014 of the Abuja Declaration for Mercury-Free Dentistry for Africa. Africa has the smallest use of amalgam,^[3] hence we have the shortest distance to go.

8. As proof of the feasibility of mercury-free alternatives, across the continent the transition to mercury-free dentistry has begun in Africa. Mercury-free alternatives work in Africa. Many years ago, Zambia (2016) and Mauritius (2013) ended amalgam use for children. Going farther, the Tanzania Guidelines (2020) end amalgam for all children and for all women of childbearing age in 2023. Dental schools, such as the Université de Félix Houphouët-Boigny in Abidjan and all Federal universities of Nigeria, are shifting their curriculum to mercury-free dentistry. Entire hospital systems, such as the Cameroun Baptist Convention, and public dental clinics of Madagascar, have ended amalgam use entirely. Military hospitals in Abidjan, Antananarivo (Madagascar), Cotonou (Benin) have definitively abandoned amalgam use for several years.

We appreciate this opportunity to present our views to the Secretariat.