

Thank you for giving me the opportunity to be here and provide a statement. My name is Eva Vanamee, I am a member of the Scientific and Clinician Advisory Committee of SafeMinds. I earned a Master's degree in Chemistry at the Eötvös Loránd University in Budapest, Hungary and a Ph.D. in Biophysics from the Albert Einstein School of Medicine in New York. I am currently an Assistant Professor of Structural and Chemical Biology at the Mount Sinai School of Medicine in New York. I would like to address the committee about the use of mercury containing preservatives in vaccines.

The use of mercury in medical products has come under increased scrutiny during the last decade and several countries (including the European Union and the United States) are in the process of or have already phased out the use of mercury, including in vaccines, by moving toward other less toxic preservatives or shifting to preservative-free presentations. I would like to urge the WHO to do the same so children all over the world can have access to safer vaccines. Beyond safety, this is a moral and human rights issue as well.

I am a scientist, who has worked with mercury in my research and I can state with confidence that there is no safe level of mercury exposure. Mercury is toxic in all of its forms, including ethylmercury, the active ingredient in the vaccine preservative thimerosal. I would like to provide a few facts for your consideration:

- As small as 0.5 ppb of mercury can kill brain cells. In comparison, the typical concentration of mercury in vaccines preserved with thimerosal is 50,000 ppb. The U.S. Environmental Protection Agency consider 2 ppb as the safe limit for mercury in drinking water and requires liquid waste, which exceeds 200 ppb of mercury to be disposed of as hazardous waste.
- The state of California recognizes thimerosal as a reproductive toxicant and exposure during pregnancy can disrupt the development of the fetus or cause fetal death. Prenatal exposure may also result in birth defects, low birth weight, and psychological or behavioral deficits that manifest later in life.
- Levels of mercury documented in infants after exposure to thimerosal-containing vaccines have reached levels classified by the U.S. Centers for Disease Control and Prevention (CDC) as mercury chemical poisoning. These same exposure levels in infant primates resulted in significant deposition of inorganic mercury in the brain.

*Mercury Free Kids Have Safe Minds*

16033 Bolsa Chica, #104-142, Huntington Beach, CA 92649

[info@safeminds.org](mailto:info@safeminds.org) (tel) 404-934-0777 (fax) 714.495.4088 [www.safeminds.org](http://www.safeminds.org)

Hundreds of scientific studies published over the past five decades have demonstrated significant toxicity of thimerosal, calling for the removal or restriction of its use as a preservative in all products.

The WHO maintains that a preservative is necessary in multi-dose vaccine preparations. Fortunately, there are other readily available products that are already in use as vaccine preservatives such as 2-phenoxyethanol that do not contain mercury, are much less toxic, do not bioaccumulate and whose cost is comparable to that of thimerosal. Their immediate substitution should be a global priority. I would also like to urge the WHO to make it a priority to find and expedite the approval of cheaper preservative free solutions for vaccine delivery.

Although some may view mercury exposures from vaccines as small and insignificant, there is no insignificant amount of mercury when it is being directly injected into the body of an infant, young child or pregnant woman. There are many sources of mercury exposures that individuals are subject to, as well as other synergistic exposures like pesticides, lead and arsenic. Adding to this toxic burden, even the smallest amount from vaccines can provide a tipping point. In addition, individual sensitivity to mercury varies. Most sources of mercury are beyond our full control but vaccines are the one exposure route that is fully under human control. I am asking the WHO to put safety first and apply the precautionary principle.

Once the Global Mercury Treaty is adopted and the public becomes aware of the broad prohibition of mercury in products **not** intended for human consumption, many may refuse vaccines that contain mercury due to safety concerns. This may lead to outbreaks of vaccine preventable disease.

In closing -- this is not a question of all or none; we can and should make vaccines safer to accomplish all the goals of health and safety outlined in the UN Millennium Development Goals and the Rio Declaration. I am asking the WHO to provide the leadership and the resources to make that happen. As such, looking at all potentials, including the ones on the agenda, but also ones not listed here - such as alternative delivery systems including trans-dermal patches and nasal sprays - need consideration.

Thank you.