



International Baby Food Action Network

Red internacional de grupos pro alimentación infantil

Réseau international des groupes d'action pour l'alimentation infantile

Dr. Philippe Grandjean, Department of Environmental Health, Harvard T.H. Chan School of Public Health, Boston, MA, USA

Dr. Brian Bienkowski, Environmental Health News, USA

September 3, 2015

Dear Dr. Philippe Grandjean, Dr. Brian Bienkowski,

We are writing on behalf of IBFAN's working group on chemical and microbiological contamination of infant feeding products after reading your article¹ and report², respectively. According to members of our global network, your conclusions have been used by media in several countries and regions to the detriment of breastfeeding. Most media seek sensationalist titles to increase readership of their publications and exploit your accounts to this effect.³ This is creating a fear campaign because social media transmit simplified messages around the world in seconds. Those media which present a more balanced view and emphasize the importance of breastmilk even when “polluted” are appreciated exceptions.

We realise that the US Congress is debating the Toxic Substances Control Act to regulate chemicals. This is extremely important and past examples have shown how the risk of “polluted” breastmilk can be a powerful lobbying argument in favour of restriction of harmful chemicals. Breastmilk is a more readily available body fluid, thus allowing biomonitoring and demonstrating that a chemical substance has found its way into the food chain and is accumulating in humans.⁴ However, to be effective as an argument, the scientific evidence must be rigorously verified. For this reason, we wish to express our concern about potential flaws in the study and reports about it:

- The study was conducted in the Faroe Islands where the parents and more than two-thirds of the children eat whale by age 5. In how many populations in the world is whale meat a normal component of a child's diet? Can the results of the study be generalised to the whole world? Why is this fact not mentioned in your reports?
- The article states that researchers looked at the levels of five types of perfluorinated substances in children's blood at birth, and at 11 and 18 months and 5 years of age. But serum concentrations at birth were calculated from maternal concentrations at

¹ Mogensen UB, Grandjean P, et al. Breastfeeding as an Exposure Pathway for Perfluorinated Alkylates. Environ Sci Technol 2015; DOI: 10.1021/acs.est.5b02237

² Breastfeeding exposes babies to water- and stain-proofing chemicals. August 20, 2015 <http://www.environmentalhealthnews.org/ehs/news/2015/aug/breastfeeding-baby-health-chemicals-endocrine-disruption>

³ See for example The Times of India <http://timesofindia.indiatimes.com/home/science/Breastfeeding-can-expose-babies-to-toxic-chemicals/articleshow/48604800.cms>

⁴ <http://www.who.int/foodsafety/chem/POPtechnicalnote.pdf?ua=1>

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32 weeks of gestation, and are therefore a possibly imprecise proxy. The fact that concentrations were not measured in breastmilk after birth makes the interpretation of results even more questionable.

- Blood levels at 11 and 18 months and 5 years of age may be associated not only with the intake of breastmilk, but also with the intake of complementary foods. How is it possible to state that exclusively breastfed infants showed increased levels of 20-30% per month, if levels were not measured during the exclusive breastfeeding period?
- Breastfeeding definitions vary among researchers. This paper does not define exclusive or partial breastfeeding. Some definitions of exclusive breastfeeding include the use of water. Some others include the use of vitamins (of concern would be the omega 3's, vitamin D, cod liver oil derived from marine oils). How was exclusive breastfeeding defined and did mothers understand that definition?
- Blood levels were initially measured between 1997 and 2000 and then again when the children were between 5 and 7 years old, i.e. between 2005 or 2007. Why was the study released in 2015?

But irrespective of the quality of the study and of the generalizability of its results, we wish to call your attention to other important information on chemical residues in breastmilk which in our opinion should not be omitted in reports that will then be picked up by media worldwide:

- The fact that breastmilk is beneficial even in a polluted world.⁵⁶
- The fact that breastfeeding boosts the maturation of the infant's immune system, whereas formula does not. Your accounts, and the media that picked them up worldwide, mentioned only the possible reduction of the immune response in children fed "tainted" breastmilk.
- The fact that prenatal transmission of chemical residues, especially early in pregnancy, can have a more negative impact on foetal development and on infant and child health than postnatal transmission through breastmilk.⁷⁸
- Finally, the fact that many chemical residues, including perfluorinated substances, tend to bio-accumulate in food chains and can persist for a long time, and are found regularly in the blood of animals and humans worldwide, including males, with possible negative effects on reproductive health.

If this information had not been omitted, then the media would have avoided throwing the burden of responsibility on women and breastfeeding, and would possibly ask that policies should prioritize the prevention of exposure to the general population, rather than fuel campaigns against breastfeeding, to the delight of manufacturers of breastmilk substitutes.⁹

⁵ http://www.who.int/foodsafety/areas_work/chemical-risks/pops/en/index1.html

⁶ <http://ibfan.org/article-norwegian-report-revised>

⁷ Boersma ER, Lanting CI. Environmental exposure to polychlorinated biphenyls (PCBs) and dioxins. Consequences for longterm neurological and cognitive development of the child lactation. *Adv Exp Med Biol* 2000;478:271-87

⁸ Vreugdenhill HJ et al. Prenatal exposure to polychlorinated biphenyls and breastfeeding: opposing effects on auditory P300 latencies in 9-year-old Dutch children. *Dev Med Child Neurol* 2004;46:398-405

⁹ Arendt M. Communicating human biomonitoring results to ensure policy coherence with public health recommendations: analysing breastmilk whilst protecting, promoting and supporting breastfeeding. *Environ Health* 2008;7Suppl1:S6

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To conclude, we would invite you to issue a statement that will hopefully counter the damage to breastfeeding done by your recent article and report, and to adopt a more evidence based approach in future accounts.

Sincerely,



Adriano Cattaneo, Italy



Alison Linnekar, France

Sent on behalf of:

IBFAN's global working group on chemical and microbiological contamination of infant feeding products

Elisabeth Sterken, Co-Chair, IBFAN Global Council, Canada

Marta Trejos, Global Coordinator, global Breastfeeding Initiative for Child Survival, gBICS, Costa Rica

Reviewed by:

Maryse Arendt, Luxembourg

Carol Bartle, New Zealand

Veronica Garea, Argentina

Valerie McClain, USA

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