To: IOM/NAS leadership and Food and Nutrition board members
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Dear Ms. Mosley, et al.

This letter serves as a formal notification to the IOM and NAS leadership, you as registered agent for the NAS, and the Food & Nutrition board members personally of two issues:

I. Failure to maintain the '**DRI: Elements**' table with current and accurate information reflective of the science on fluoride, some of which was provided by Committee on Fluoride in Drinking Water for the 2006 National Research Council.
II. Failure to warn the government and public of the health risks fluoride ingestion poses to the young, elderly, and those with health conditions.

Given that the IOM DRI table that includes fluoride is used by state Departments of Health, local Boards of Health, and medical professionals as justification for the fluoridation of water supplies which results in uncontrollable doses and ubiquitous contamination of drink and food with fluoride, an inorganic chemical characterized by chemists as a poison and labeled as a neurotoxin in 2012, the continued failure of the IOM to fulfill their **'aim of helping government to make informed health decisions based on evidence'** will make the IOM and its leadership culpable for damage caused by ingestion of fluoride in food or drink.

Moreover, by allowing the fluoride section in the DRI:Elements table to stand in the most recent 2006 DRI when almost every major point in the 1997 NAS document used to justify the DRI has been since scientifically disproved, the IOM fails to fulfill its '**mission of asking and answering the nation's most pressing questions about health and health care.**'

Finally, it is disheartening that a series of 1997-98 letters from scientists to the IOM were dismissed by the IOM/NAS leadership. That dismissal represents a failure on the part of the IOM to '**facilitate discussion, discovery, and critical, cross-disciplinary thinking**.' The concerns and warnings contained in those letters have been validated by 21st century science and health trends outlined in this communication. Consequently, it is past time for the IOM to correct that failure.

What is required is the immediate removal of 'safe and adequate' fluoride recommendations from the DRI: Element list with its age-appropriate suggestions as that artifact is being used in a manner harmful to public health. Furthermore, the notification of state Departments of Health of such removal and concerns on the part of the IOM as to the establishment of any safe level of the neurotoxic fluoride given its significant adverse impact on the health of the public documented by the science of the past twenty years is advisable given the seriousness of those risks.

In 1998 the IOM wrote that although they did ***not*** consider fluoride a nutrient and made no recommendations for infants under 6 months, "During the second six months of life and thereafter, the AI for fluoride from all sources is set at 0.05 mg/kg/day because it confers a *high level of protection against dental caries* and is associated with *no known unwanted health effects*." These are the **two faulty assumptions** that have established the foundation of all water fluoridation policy.
- See letter from Bruce Alberts & Kenneth Shine of IOM to Albert W. Burgstahler et al, 20 Nov 1998

In taking this action, we suggest you consider the precautionary principle applied by government when no-smoking bans became the order of the day. A shared resource like water and air must be safe for the most vulnerable of the public based on possible health risks and exposure over a lifetime and include an adequate margin of safety. There is no evidence of such a scientifically valid safe exposure level for fluoride.

RESOURCES: *see endnotes*

1. 2006: Current DRI: http://www.nap.edu/openbook.php?record_id=11537&page=312
2. 1997 Dietary Reference Intakes: Elements: http://www.iom.edu/Global/News%20Announcements/~/media/48FAAA2FD9E74D95BBDA2236E7387B49.ashx
3. 1997 Chapter 8: Dietary Reference Intakes: http://www.ncbi.nlm.nih.gov/books/NBK109832/
4. 1997-98 Letters protesting fluoride DRI & IOM responses: http://www.fluoridation.com/fraud.htm
5. 2006 NRC Report to EPA: Fluoride in Drinking Water: http://www.nap.edu/openbook.php?record_id=11571
6. 2015 CDC on water fluoridation: http://www.cdc.gov/fluoridation/pdf/statement-cwf.pdf
7. EPA on Safe Water Drinking Act: http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm
8. MA Fact Sheet: http://www.mass.gov/eohhs/docs/dph/com-health/oral-health/drinking-tap-water-dental-health.pdf

CHEMICAL TOXICITY

Although the dental community that calls fluoride a "naturally occurring mineral" wants to frame the fluoride/fluoridation question completely around dental concerns, that effort is at the very least disingenuous. Chemists characterize fluoride as a poison. Fluoride is included in toxicology compendiums and it has been labeled a neurotoxin. Fluoride is more toxic than lead and only slightly less toxic than arsenic. Harvested from smokestack slurry, most fluoride added to our water supplies originates as waste product in the aluminum and phosphate industries. A 2014 study of fluoride samples predictably reported that 100% of those samples were contaminated with aluminum, while lead, arsenic, cadmium and barium were other common contaminants. The study author, toxicologist Dr. Phyllis Mullenix, wrote, "*Aluminum and barium levels approach what EPA finds in electroplating sludge and hazardous soils….*"

The 2013 study of chemist Dr. Richard Sauerheber examined the differences between naturally occurring Calcium Fluoride and the highly toxic Industrial Fluoride used in water supplies. Dr. Sauerheber confirmed that the calcium in CaF makes the fluoride much less absorbable by the human body and therefore less toxic when ingested in that form, whereas the industrial fluoride is not only highly absorbable but also leaches lead, another neurotoxin, out of water pipes into water supplies. There is also evidence that neurotoxins act synergistically so that when combined their toxicity is greater than the sum of their parts. Large studies conducted in New York (2000) and Massachusetts (1999) published since the IOM 1997 review of fluoride have confirmed that children living in communities using “silly fluorides” have more lead in their blood. Those studies are included in a 2014 letter with substantiating documentation written by Dr. Sauerheber to the FDA protesting water fluoridation as a harmful practice.

The DRI reference to fluoride, similar to dental assertions, naively does not take into account either the toxic nature of fluorine or the contaminated dietary sources of this element.

RESOURCES: *see endnotes*

9. 2014 Mullenix study in full: http://momsagainstfluoridation.org/sites/default/files/Mullenix%202014-2-2.pdf
10. 2014 Sauerheber FDA Ltr: http://sboh.wa.gov/Portals/7/Doc/Meetings/2014/06-11/WSBOH-06-11-14-Tab10c.pdf
11. 2013 Sauerheber in J of Env Pub Health: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3690253/
12. 2011 Dr. Kathleen Thiessen Comments : http://www.fluoridealert.org/wp-content/uploads/thiessen.4-19-11.pdf
13. 2007 in Neurotoxicology about Lead, Disinfectants & Fluoridation: http://www.ncbi.nlm.nih.gov/pubmed/17420053
14. 2000 in Neurotoxicology about Silicofluoride & Lead: http://www.ncbi.nlm.nih.gov/pubmed/11233755

SYSTEMIC v. TOPICAL

Even within the dental framework, there is no actual science proving any systemic ingestion mechanism of fluoride that results in dental benefits. Those claims are based on medical hypothesis and dental studies open to charges of bias and selective sampling, i.e. proxy use of Medicaid codes for cavities in a region with known high incidences of Medicaid fraud as input in a simulation to demonstrate that water fluoridation is beneficial to poor children. The simulation output is contrary to Medicaid data from other regions. It is also in stark contrast to real world data from large fluoridation studies in the US and New Zealand that examined tens of thousands of actual children which demonstrated there is no significant difference between cavity rates in fluoridated and non-fluoridated communities.

The findings of the 2000 UK York Review of all world wide dental literature also denied any proof of SES benefits. That panel, like many other dental panels and the 2006 NRC, commented on the surprising lack of high quality evidence of dental benefit due to fluoridation or any evidence of safety.

> 1. Whilst there is evidence that water fluoridation is effective at reducing caries, the quality of the studies was generally moderate and the size of the estimated benefit, only of the order of 15%, is far from "massive"
>
> 2. The review found water fluoridation to be significantly associated with high levels of dental fluorosis, which was not characterised as "just a cosmetic issue".
>
> 3. The review did **not** show water fluoridation to be safe. The quality of the research was too poor to establish with confidence whether or not there are potentially important adverse effects in addition to the high levels of fluorosis. The report recommended that more research was needed.
>
> 4. There was little evidence to show that water fluoridation has reduced social inequalities in dental health....
>
> *Professor Trevor Sheldon, chair 2000 York Review*

The more recent Medicaid simulation also predicts dire consequences in the event of cessation, again in contrast to real world studies that show continued cavity decline after cessation. Additionally, Pew, CDC and ADA marketing materials claim fluoridation benefits are proved by citing very small samples, such as

a 1998 study comparing three towns in NE and IL. Pew failed to note the impact of sealants commented on by the researchers, or that the DMFS difference was very small in absolute terms with more than 80% of dental surfaces cavity free in all three towns. Nor does this current marketing material mention that the incidence of dental fluorosis in all towns was also very similar, having increased in the non-fluoridated towns. In other words, this was a small study with similarly small findings whose most important finding could be said to be that even those living in non-fluoridated towns were ingesting toxic levels of fluoride prior to 1998.

This biased dental practice is a continuation of a pattern begun with the discredited 1940s trials. Although those trials were challenged for statistical manipulation, poor design, bias, selective sampling, and conclusions not supported by the evidence at the time of their publication by dental researchers such as Philip R.N. Sutton, it took decades before the CDC and NIDCR would admit to the inadequacy of those and subsequent 20th century fluoridation studies. The IOM referred to these studies in their 1997 determination, and to CDC endorsements of their own CDC fluoridation policy in 2006.

The only study mentioned in the IOM report that has any small degree of scientific validity is the Brunelle and Carlos study. However, the percentages of 18% and 25% mentioned in that study are disingenuous. In absolute terms, they represent one or two fewer cavities over a lifetime, moreover they represented only a sampling of the data. When the complete data set of the 39k American children examined was calibrated by Dr. John Yiamouyiannis, those results showed no significant differences in decay rates between fluoridated and non-fluoridated communities.

Despite the continued opposition of fluoride industry backed proponents and promotion of biased studies, even the CDC agreed in 1999 and 2001 that the scientific evidence indicated that fluoride provided a 'predominantly' topical and post-eruptive benefit, based on studies that concluded the benefit was 'almost exclusively' topical and post-eruptive. The CDC also confirmed that fluoridation did ***not*** result in anti-cariogenic saliva. Neither the CDC nor studies proffered any scientific proof of any systemic and pre-eruptive benefit. However, the dental hypothesis was that fluoride hardens teeth and remineralizes them both pre and post-eruptively.

In 2011 and 2013, Dr. Muller et al. deflated the post-eruptive remineralization hypothesis and offered the only evidence-based scientific proof of fluoride's dental benefit. In high concentrations, such as in dentifrices, fluoride makes the cavity producing bacteria "less sticky." In other words, fluoride, a known enzyme inhibitor, weakens or kills bacteria. 2013 studies on concentrated topical applications in dental offices also provided some weak evidence of topical effectiveness.

Likewise, the concept of fluoride hardening teeth pre-eruptively by virtue of causing mild fluorosis has questionable scientific merit. Dental fluorosis is a poisoning of ameloblast mitochondria that results in a structural change to the composition of the tooth. Fluorosed teeth in the mild and very mild categories may be slightly harder, but tooth structures are changed making them more brittle with age and potentially more difficult to repair. That structural change is more pronounced in moderate and severe fluorosis and includes tooth pitting and flaking enamel in addition to white, yellow or brown staining on 75-100% of teeth. Although dentists, and even the NRC, may argue whether moderate and severe dental fluorosis constitutes a cosmetic v. health effect, there is universal agreement that both moderate and severe dental fluorosis are adverse symptoms of fluoride toxicity due to ingestion, and cost considerable to fix.

Even if ingestion resulted in some reduction of cavities per the marketing material of the fluoride lobby who are actively engaged in manipulating public perception and the media through a

practice known as Astroturfing, the harm to human health outlined in this communication outweighs that purported benefit. The misery caused by increased autoimmune disease, thyroid disorders, cognitive disabilities, kidney disease, bone disease and moderate to severe dental fluorosis trumps any argument made in favor of fluoride, which is only scientifically validated as having a mild topical anti-cariogenic benefit.

Despite what many dentists and the American Dental Association (ADA) claim, there isn't consensus within the dental community regarding the need for a fluoride DRI. Even dental researchers with the longitudinal Iowa Fluoride Study (IFS) stated in 2003 that, "Current evidence strongly suggests that fluorides work primarily by topical means through direct action on the teeth and dental plaque. Thus ***ingestion of fluoride is not essential for caries prevention,***" and in 2009 suggest that caries status was not dependent on fluoride intake. Those same researchers also recommend the reduction of fluoride ingestion early in life, and the pro-fluoride Dr. Levy, head of the IFS project, questioned the term "optimum fluoride level" in 1999 and 2009, an opinion echoed by many dental professionals and fluoride researchers.

RESOURCES: *see endnotes*

15. 2015 Cost of Fluoridation: http://www.ncbi.nlm.nih.gov/pubmed/25471729
16. 2014 Review Article in Scientific World Journal: http://www.hindawi.com/journals/tswj/2014/293019/
17. 2013 Remineralization. http://www.sciencedaily.com/releases/2013/05/130501112855.htm
18. 2013 Topical Applications, an ADA report: http://ebd.ada.org/~/media/EBD/Files/Topical_fluoride_for_caries_prevention_2013_update.ashx
19. 2013 The Big Chill, manipulation of public: http://www.pipsc.ca/portal/page/portal/website/issues/science/bigchill
20. 2010 Fluorosed Teeth in J of Dental Medical Science: http://lib.tmd.ac.jp/jmd/5701/03_Waidyasekera.pdf
21. 2010 Bacteria: http://www.acs.org/content/acs/en/pressroom/presspacs/2011/acs-presspac-march-2-2011/does-fluoride-really-fight-cavities-by-the-skin-of-the-teeth.html
22. 2010 Medicaid codes as proxies in biased ecologic study: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2925000/
23. 2009 IFS: http://www.ncbi.nlm.nih.gov/pubmed/19054310
24. 2008. The Devil's Poison by Dean Murphy, DDS.
25. 2008 Scientific Controversy. http://globalization.icaap.org/content/v7.1/Martin.html
26. 2007 80% of dentists surveyed get it wrong: http://www.ncbi.nlm.nih.gov/pubmed/17899898
27. 2004 Systemic v. Topical in Caries: http://www.ncbi.nlm.nih.gov/pubmed/15153698?dopt=Abstract
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30. 2000 York Review: http://www.york.ac.uk/inst/crd/CRD_Reports/crdreport18.pdf
31. 2000 Prof. Sheldon, York Review: http://www.nteu280.org/Issues/Fluoride/flouridelist.htm
32. 1999 New Zealand: http://www.bmartin.cc/pubs/99air/99Colquhoun.pdf
33. 1995 CA Medicaid dental claims higher in fluoridated counties: http://www.nofluoride.com/calhealth.cfm
34. 1990 Analysis of 39k US children: http://www.fluorideresearch.org/232/files/FJ1990_v23_n2_p055-067.pdf
35. 2001 Canada Cessation Study: http://www.ncbi.nlm.nih.gov/pubmed/11153562
36. 2000 North Carolina Cessation Study: http://www.ncbi.nlm.nih.gov/pubmed/10728978?dopt=Abstract
37. 2000 Cuba Cessation Study: http://www.ncbi.nlm.nih.gov/pubmed/10601780
38. 2000 East Germany Cessation Study: http://www.ncbi.nlm.nih.gov/pubmed/11014515
39. 1998 Finland Cessation Study: http://www.ncbi.nlm.nih.gov/pubmed/9758426
40. 1992 Netherlands Cessation Study: http://www.ncbi.nlm.nih.gov/pubmed/11842782
41. 1998: Pew/CDC bias see NE/IL study,: http://www.ilikemyteeth.org/fluoridation/fluoride-toothpaste/
42. 1988: Reference to 1972 JADA cost comparison of communities: http://www.slweb.org/hileman.html
43. 1960 Errors & Omissions by Philip Sutton: http://www.scribd.com/doc/212649060/Fluoridation-Errors-and-Omissions-in-Experimental-Trials-2-Ed-Phillip-Sutton-1960

RACIAL AND ECONOMIC DISPROPORTIONATE HARM

African American and Hispanic Civil Rights leaders have officially opposed fluoridation since 2011 based on the disproportionate harm to their communities. Non-white and poor populations not only have a higher rate of dental fluorosis, but also suffer from most of the moderate and severe incidences that require veneers and crowns to fix. The general US rate for dental

fluorosis among adolescents as of 2004 was 41%, and that rate is higher in fluoridated communities. This is a permanent condition for those afflicted.

Communications among government agencies such as the CDC and HHS with the private organizations such as ADA, NDA and Pew noting the disproportionate harm to minority communities were released under a Freedom of Information Act (FOIA) request made by former UN Ambassador Andrew Young. The FOIA documents were published in the mainstream press in October 2014.

Throughout the decades, those inter-agency communications emphasized protecting the fluoridation policy, rather than addressing health implications. For example, the topic of a 1962 government memo concerned the impact on the fluoridation program if "opponents" learned that "negroes in Grand Rapids had twice as much fluorosis than others." Emails from government officials in 2011 admit, "Per CDC data, blacks did have higher levels of dental fluorosis than whites (**58% vs 36%**)" and "CDC data also show that in 1986-1987 blacks had more untreated tooth decay." Throughout, the government/private industry discussion is restricted to how to neutralize the threat to the fluoridation policy, discussing "strategy" rather than addressing either harm caused by fluoridation or dental decay among minority and poor populations.

These same heavily redacted communications also mention the high incidence of kidney disease and diabetes among the black and Hispanic communities, both of which set up a vicious cycle as sub-optimal kidney fluoride clearance results in higher fluoride retention and possible kidney damage. Diabetics often drink much higher amounts of water, naturally resulting in higher fluoride intake and absorption. Fluoride is also implicated in causing both kidney disease and diabetes, a chicken and egg dilemma.

Although the initial 1940s trials noted that "Negros" naturally had better teeth more resistant to decay than white Americans, within a generation the CDC reported that Black Americans in fluoridated cities had the worst dental health. Hispanics have similarly poor dental health. Native Americans living on fluoridated reservations with free dental care, like Black Americans in inner cities, have high rates of kidney disease, diabetes, endulism, and poor dental health.

A study published by Boston Children's Hospital with the Harvard School of Dental Medicine in 2013 noted a 42% increase in dental emergencies in hospital ERs between 2000 and 2008. Some of these visits required hospitalization and some resulted in deaths. The study noted that most of the patients were low income and uninsured. Further research revealed that most of them were also living in fluoridated communities.

Expert in Chemical Research: "Fluoride is an enzyme poison, in the same class as cyanide, oxalate, or azide ... it is capable of a very wide variety of harmful effects, even at low doses. It is a scientific disgrace that a well organized lobby of the American Dental Association ever managed to stampede American legislators into ignoring the highly technical but very cogent objection to fluoridation." - *James B. Patrick, Ph.D., research scientist at National Institute of Health*

Expert in Medical History: "I now realize that what my colleagues and I were doing was what the history of science shows all professionals do when their pet theory is confronted by disconcerting new evidence: they bend over backwards to explain away the new evidence. They try very hard to keep their theory intact — especially so if their own professional reputations depend on maintaining that theory." - *Dr. John Colquhoun, former Chief Dental Officer of New Zealand*

Expert on Scientific Controversy: "Ironically, the "antis," who are usually portrayed as unscientific, often act more scientifically in the debate.... By contrast, the political profluoridation stance has evolved in to a dogmatic, authoritarian, essentially antiscientific posture, one that discourages open debate of scientific issues." - *Edward Groth, III (1991)*

An example of the disconnect between the harm caused by fluoridation in minority and low income communities and the promotion of fluoridation policy as a panacea for the poor is also reflected in these two 2014 “feel good” news stories out of Key West, Florida.

1. Key West wins an award for 50 years of water fluoridation: http://keysnews.com/node/55964
2. Rotary Club provides dental care to two poor children: http://keysnews.com/node/60713
    1. One girl required 10k worth of dental work.
    2. One boy with discolored teeth had cosmetic dentistry.

Fluoridation certainly didn’t help the first child, and most assuredly damaged both the teeth and self-esteem of the second.

Although the 2014 release of the heavily redacted FOIA documents gives the impression of this information being hidden, it was hidden in plain sight. In 1952, JADA published an article that stated, “malnourished infants and children, especially if deficient in calcium intake, may suffer from the effects of water containing fluorine (fluorosis) while healthy children would remain unaffected.” In 1972, the Canadian NRC wrote, “It appears possible that chronic exposure to fluoride increases the metabolic requirement for vitamin C.” And in 1965, Dr. George Waldbott referenced reports from the 1940s and 1960s noting double the dental fluorosis among the “Negro” children. Dr. Waldbott also discusses the role of nutrition in good dental health, as well as adverse effects such as gastrointestinal bleeding in infants given fluoride with their vitamin drops. Dr. Waldbott was one of many who wrote that cavities is a disease of poverty due to lack of nutritious food, not due to a lack of fluoride and not curable by fluoride.

Consequently, dental claims that fluoridated water is beneficial to the poor are beyond disingenuous. Current recommendations from the American Dental Association (ADA) and others that mixing infant formula with fluoridated water although safe may cause mild fluorosis ignores the potential for more serious incidences of moderate and severe fluorosis, adverse autoimmune responses, endocrine disruption, and gastrointestinal distress that has increased relevance to the lower social economic status community.

ADA recommendations are also blind to the economic realities beyond malnutrition - an inability to purchase bottled water when money is tight. Moreover, ADA infant formula recommendations ignore similarly weak and under advertised CDC recommendations that in order to avoid dental fluorosis the ingestion of fluoride should be restricted for children under age 3, 5 or 8 dependent on which government webpage you visit. All these recommendations are beyond the ability of the low income to follow, putting their children at a significantly higher risk than children with parents in better economic circumstances who can afford bottled water and a healthy diet for their families. These ‘**special considerations**’ are not reflected in the IOM DRI on fluoride.

The weak warnings from organizations vested in promoting water fluoridation are based on protecting our national policy of fluoridation above any concern for protecting our children’s health. Our government at federal, state and municipal levels use the IOM Dietary Reference Intake (DRI) to justify the existence of water fluoridation policy.

RESOURCES: *see endnotes*

44. 2014 FOIA: http://www.thenewamerican.com/usnews/health-care/item/19317-feds-blacks-suffer-most-from-fluoride-fluoridate-anyway#
45. 2014 Wm. Maas on kidneys: http://benswann.com/do-newly-released-emails-reveal-conflict-of-interest-between-the-cdc-and-the-ada/
46. 2014 About Dental Emergencies study: http://now.tufts.edu/articles/preventing-needless-dental-emergencies
47. 2012 Kidney by race: http://www.kidneyfund.org/about-us/assets/pdfs/akf-kidneydiseasestatistics-2012.pdf

48. 2011 FOIA docs: http://www.nidellaw.com/wp-content/uploads/2014/09/FOIA-3-Civil-Rights.pdf
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52. CDC age 5: http://www.cdc.gov/fluoridation/faqs/
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56. 2005 CDC Table 23 on fluorosis by race: http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm#tab23
57. 2004 CDC: http://www.cdc.gov/nchs/data/databriefs/db53.htm
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63. 1960 Fluoridation E&O by Philip Sutton: http://www.scribd.com/doc/212649060/Fluoridation-Errors-and-Omissions-in-Experimental-Trials-2-Ed-Phillip-Sutton-1960
64. 1952 Relation of endemic dental fluorosis to malnutrition. JADA: http://www.slweb.org/massler-schour.html

ENDOCRINE DISRUPTION

There is no question that fluoride is an endocrine disruptor. The 2006 Report to the EPA on Fluoride in Drinking Water confirmed this fact. The only thing not confirmed is how little fluoride ingestion is required to adversely impact individual health.

The 2006 NRC noted in their report that there were no studies on susceptible populations, among whom it was reasonable to anticipate harm at lower doses. In the chapter devoted to endocrine disruption the committee was particularly concerned with the teeter-totter hormonal impact for those with thyroid and parathyroid diseases, as well as diabetes:

- **PARATHYROID DISEASE**: "…fluoride induces a net increase in bone formation and also decreases calcium absorption from the gastrointestinal tract; both of these effects lead to an increase in the body's calcium requirement. If dietary calcium is inadequate to support the increased requirement, the response is an increase in PTH (secondary hyperparathyroidism)." p. 250
- **DIABETES**: "…More than one mechanism for diabetes or impaired glucose tolerance exists in humans, and a variety of responses to fluoride are in keeping with… variability among strains of experimental animals and among the human population. The conclusion from the available studies is that sufficient fluoride exposure appears to bring about increases in blood glucose or impaired glucose tolerance in some individuals and to increase the severity of some types of diabetes…..therefore, any role of fluoride exposure in the development of impaired glucose metabolism or diabetes is potentially significant." pp 259-260

In the last chapter, the committee politely chided the EPA that to determine a Maximum Contaminant Level Goal (MCLG), it is necessary to have certain inputs not available. The EPA responded with a rather confused history about the creation of the fluoridation scheme. In her 2011 comments to the EPA in response to their non-responsive response, a panelist on the 2006 Committee on Fluoride in Drinking water, Dr. Thiessen was very specific in outlining the risks to sensitive populations and the EPA's responsibility:

- "While it would be nice to have good dose-response information for various adverse health effects, the lack of it should not be a justification to eliminate a "known" or "anticipated" effect from being considered in setting an RfD or MCLG. As described in the IRIS

Glossary's definition (EPA 2011d), an RfD can be set from a NOAEL (no observed adverse effect level) or LOAEL (lowest observed adverse effect level) in the absence of dose-response information." p. 3

- "…. a LOAEL for some adverse health effects is lower than EPA's new RfD, which is supposed to protect the population, including sensitive subgroups, from deleterious effects during a lifetime (EPA 2009; 2011d)." p. 4
- "For persons with iodine deficiency (one example of a sensitive subgroup), average intakes as low as 0.01-0.03 mg/kg/day could produce effects (NRC 2006)." p. 4
- "Thyroid dysfunction and Type II diabetes presently pose substantial health concerns in the U.S. (NRC 2006). Of particular concern is an inverse correlation between maternal subclinical hypothyroidism and the IQ of the offspring. In addition, maternal subclinical hypothyroidism has been proposed as a cause of or contributor to development of autism in the child (Román 2007; Sullivan 2009). Calcium deficiency induced or exacerbated by fluoride exposure may contribute to a variety of other health effects (NRC 2006)." p 8
- "As reviewed by NRC (2006), fluoride also 'may impact the normal function of the thyroid' and 'may disrupt the thyroid's ability to produce hormones that are critical to developing fetuses and infants.'" p. 8

In her 2011 comments to the EPA, Dr. Thiessen also spoke to the potential carcinogenic and genotoxic nature of fluoride, stating the NRC "unanimously concluded that 'Fluoride appears to have the potential to initiate or promote cancers.'" She also provided charts of fluoride exposure levels and of increased non-traumatic bone fractures correlated with dental fluorosis.

One of three of the 2006 Committee who have been outspoken about the harmful practice of fluoridation, which is in large part based on the IOM DRI levels of fluoride, Dr. Thiessen has also filed an affidavit in a Canadian lawsuit. We suggest that filing in particular should be read carefully by the IOM. It focuses on the concept of '**gross disproportionality**,' i.e. the potential of small benefit to some does not justify an action with risk of great harm to others.

Expert on Preventative Dentistry: "The evidence that fluoride is more harmful than beneficial is now overwhelming… fluoride may be destroying our bones, our teeth, and our overall health."
- Dr. Hardy Limeback (2007)

Expert on Risk Assessment: "The available data, responsibly interpreted, indicate little or no beneficial effect of water fluoridation on oral health."
- Dr. Kathleen Thiessen (2011)

Expert in Neuroscience: "There's no doubt that the intake of fluoridated water is going to interrupt basic functions of nerve cells in the brain, and this is certainly not going to be [for] the benefit of anybody." *- Dr. Robert Isaacson (2007)*

The national protest against mandated fluoridation in Ireland is also focusing on the endocrine effects. Those with diabetes mellitus are particularly vulnerable due to their high water intake which logically results in high levels of cumulative fluoride sequestered in their bones and tissues. However, the glucose metabolism of diabetics are also exacerbated by fluoride. Diabetics in the fluoridated Republic of Ireland have a 470% higher death rate than their cousins living in non-fluoridated Northern Ireland per "2001 Inequalities in Mortality Report." Environmentalist and fluoride researcher Declan Waugh has also noted in his 2013 analysis that not only does the Republic of Ireland have some of worst health records in the European Union, their dental health is not as good as that in several non-fluoridated European Union countries.

Also from our cousins across the sea is a 2015 University of Kent epidemiological study which reviewed data from Public Health England from all English General Practitioners for diagnosed incidences of low thyroid. Researchers found that those living in fluoridated communities with .7

ppm had approximately twice the incidence of low thyroid as those living in communities with naturally occurring levels at .3 ppm. They also noted that those living in communities at .5 ppm had incidences in between the other two regions, establishing a dose-response trend line. This study was published in the Journal of Epidemiological Community Health. It was also featured in Newsweek on 24 Feb 2015 where it was praised by other researchers including members of the 2006 Committee and disparaged by dentists. Its findings are consistent with studies and concerns about thyroid broader and deeper than even those of the NRC.

Several studies out of India in the past half dozen years concerning thyroid, fluoride, iodine deficiency, dental disease, and delayed tooth eruption also confirm endocrine disruption at levels deemed safe and even "optimal' by the USA. Delayed tooth eruption was noted in many of the early fluoridation trials, including by Feltman & Kosel. The pattern of delayed eruption has always been believed to be a result of fluoride's inhibition of thyroid hormones in young children, i.e. subclinical hypothyroidism.

Not documented in any study, an increase in orthodontia due to this inhibition of normal tooth eruption has been observed by and commented on by those in this field. Although perhaps not as worrisome as the hormonal impact on thyroid disorders and diabetes, increased orthodontia is an also adverse impact of fluoridation justified by the IOM DRI for fluoride. We suggest the IOM consult NRC committee member Dr. Hardy Limeback for more information on the dental impact of delayed eruption that results from the ingestion of fluoride by children under age 12.

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IMMUNE SYSTEM: ADJUVANT & PROLIFERATIVE AGENT

We know that the endocrine and immune system enjoy a sensitive bi-directional synergy. The 2006 NRC commented:

- "There is no question that fluoride can affect the cells involved in providing immune responses. The question is what proportion, if any, of the population consuming drinking water…. will have their immune systems compromised?" The committee also noted that no study examined whether a person with an immunodeficiency disease can tolerate fluoride ingestion from drinking water. p. 295

The NRC did refer to the old studies of Feltman & Kosel, Waldbott, and Grimbergen; however, we suggest that the NRC may have missed a few pre 2006 studies relevant to autoimmune disease and fluoridation. There are also a few since 2006.

In the 1950s, Feltman & Kosel documented a 1% allergic-like response in their controlled dose study of over 1,000 pregnant women and children. George Waldbott, similarly noted an

approximate 1% exhibition of the allergic wheal in skin tests, although also noted a more common adverse reaction that he did not characterize. In the 1970s, Grimbergen and Moolenburgh noted that over a period of months, the types of illnesses they saw in a recently fluoridated community changed and increased in number:

- "As a summary of our research, we are now convinced that fluoridation of the water supplies causes a low grade intoxication of the whole population, with only the approximately 5% most sensitive persons showing acute symptoms. The whole population being subjected to **low grade poisoning** means that their immune systems are constantly overtaxed….. this can hasten health calamities." (Moolenburgh, 1993)

Between 1981 and 2001, the National Academy of Sciences and others confirmed that about 15% of the general US population has Multiple Chemical Sensitivities (MCS), a condition acquired from either a catastrophic or chronic exposure to a chemical sensitizing agent.

The 2008 Research Advisory Committee on Gulf War Veterans' Illnesses confirmed that at least 25% of previously healthy young soldiers suffered from MCS. They wrote:

- "It is well established that some people are more vulnerable to adverse effects of certain chemicals than others, due to variability in biological processes that neutralize those chemicals, and clear them from the body."

The trend line is clear. From 1% in the 1950s to 5% in the 1970s to 15% or more in the 21st century, chemical sensitivity is having a greater adverse health impact on populations with each decade as more and more Americans find they can only tolerate bottled water.

That trend is reflected in allergies, which are estimated to affect approximately 55% of the US population, as well as in asthma and Celiac Disease.

- From 2001 to 2011, the CDC says the number of Americans with asthma grew by 28 percent. According to the CDC, "the greatest rise in asthma rates was among black children (almost a 50 percent increase) from 2001 through 2009." - CDC, 2013
- Learned experts in allergies and environmental disease have made the following comments:
  - "Whatever has happened with Celiac Disease has happened since 1950. The increase affected young and old people equally." - Dr. Joseph A. Murray, quoted in "Against the Grain," The New Yorker. Nov 3, 2014.
  - "There is an alarming increase in peanut allergies, consistent with a general, although less dramatic, rise in food allergies among children in studies reported by the [CDC]…" - Dr. Scott Sicherer quoted in "Peanut Allergy Cases Triple in Ten Years," Live Science. May 13, 2010.

Fluoride is a known and '**potent adjuvant.**' It intensified allergic responses in both a 1990 animal and 1999 in vitro study. Fluoride is also a '**proliferative agent**,' with a confirmed inflammatory impact on Peyer's patches, the immune sensors of the gut implicated in Celiac and Crohn's diseases. In other words, allergic reactions and symptoms of Celiac and Crohn's diseases are intensified in the presence of fluoride.

A 1977 study by Drs. Waldbott & Zacks indicate

UK Advisory Board Member: "No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice 'take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay.'" *- Dr. Peter Mansfield, 2000 York Review scientist*

Expert in Enzyme Chemistry: "The fluoride ion exerts its toxic effect by inhibiting the action of many enzyme systems." - *Hugo Theorell, MD, Nobel Prize Winner*

that the distinctive hive-like lesions called Chizzola maculae experienced by some women and children living in fluoridated communities is an abnormal blood coagulation, another inflammatory autoimmune response.

A gene study published in 2015 identifies a gene that predicts which people will have a lower tolerance to fluoride. Fluoride exposure for those with this gene results in permanent dental fluorosis and cognitive deficits.

The inflammatory nature of fluoride is a particular risk for those who have ingested fluoride over a period of years because fluoride is a cumulative poison stored in bones and tissue. The early symptoms of fluoride toxicity in the bones are symptoms of arthritis. Arthritis is the leading disability in the US, and is afflicting us at younger ages. Claims that there are no fluoridation induced "stage 4 skeletal fluorosis in the US" ignores stages 1 to 3, which is characterized by inflammatory arthritic pain. Rheumatoid arthritis is an inflammatory autoimmune disease. RA is associated with fibromyalgia, another autoimmune disease. Fibromyalgia has an unknown etiology and symptoms that align with the symptoms of fluoride toxicity.

Per the 2006 report on Fluoride in Drinking water, there is no question that fluoride ingestion has an adverse impact on those with autoimmune conditions. There is also no question that the number of Americans suffering with autoimmune diseases and environmental health issues is unacceptably high. Moreover, science beginning in the 1950s and extending to 2015 indicates that adverse impact of fluoride on those with autoimmune disease is at doses listed as safe by the IOM in the DRI table.

RESOURCES: *see endnotes*

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NEUROSCIENCE

Since 1995, there has been a coalescing of dozens of animal, tissue and epidemiological studies proving that fluoridation, even at so called "optimal" water concentration levels expected to result in safe individual doses, has an adverse impact on brain development in young children and fetuses.

These studies have been published by researchers from Cambridge MA (at Forsyth Dental Center and the Harvard School of Public Health) to China and the Middle East. They all indicate

that like exposure to lead and mercury, fluoride ingestion results in higher incidences of learning impairment among children. Some studies have traced the types of disabilities to the period of exposure, i.e. one type of disability when a rat is exposed to fluoride in utero v. another type of disability when the rat is exposed to fluoride during youth. The range of neuro-cognitive deficits include hyperactivity, attention-deficit disorder, poor memory, and lowered IQ, as well as emotional disorders such as depression and anger management issues.

A pilot study published by the Harvard School of Public Health in 2015 correlated the severity of dental fluorosis with performance on memory tests in 7 year olds who were life long residents in a community with a stable water supply at 1 mg/L fluoride. This pilot study is only the most recent in a series of studies from this team. Its results are consistent with a 2014 meta-analysis of world wide epidemiological studies proving a positive dose-response trend for neurological impairment that includes fluoride concentrations in water at or slightly below 1 ppm.

A 2014 study on rats also confirmed the level of fluoridation supported by the CDC and World Health Organization as a carie prophylactic is neurotoxic to the developing brain. These studies are just the latest in series dating back to 1995. Fluoride was declared a neurotoxicant in 2012 in an Environmental Health Perspectives meta-analysis, a classification which was confirmed in a 2014 Lancet Neurology study.

A 2015 study on 84 regions of the U.S., predicted a higher rate of diagnosed cases of hyperactivity in fluoridated regions. Every one percent increase in the regional population drinking fluoridated water in 1992 was associated with 67,000 to 131,000 additional cases of ADHD 11 years later after controlling for socioeconomic status.

The 14 year study sponsored by the Public Health Service (PHS) conducted by Feltman and Kosel noted that fluoride crosses the placental barrier, the first of many. Based on their observations, those PHS scientists took it upon themselves to modify the study, excluding children under age two exposed in utero, and reducing the dose for children under age two not exposed in utero. That study also noted that tooth eruption was delayed, speculating as did others then and now, that this delay is a result of endocrine disruption specific to the thyroid. 21st century science is connecting the endocrine disruption specific to thyroid with concurrent brain development changes that result in deficits. The CDC Toxipedia confirms, as does the NRC, that fluoride crosses the placental barrier where it accumulates in the fetus.

Regardless of any possible benefit, the evidence that fluoride is neurotoxic at the levels added to drinking water should be enough to immediately remove the fluoride AI from the DRI table where it is associated with the word “safe” and ages of children starting at 6 months.

RESOURCES: *see endnotes*

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KIDNEY

The kidneys, along with the liver, play a major role in eliminating toxins from the body. The rule of thumb over the past few decades has been that the "healthy adult" excretes 50% of the fluoride ingested. The remainder is sequestered primarily in skeleton. Consequently, the prevention toxic build-up of this cumulative poison is dependent on the functional capacity of kidneys.

The 2006 NRC on Fluoride in Drinking Water, like many bodies before and since, stated that "*Early water fluoridation studies did not carefully assess changes in renal function*." They also wrote that the renal system is at "*higher risk of fluoride toxicity than most soft tissues*."

Consequently, there are two major questions concerning fluoride and kidneys:

1. What happens to kidneys that are over-burdened with fluoride?
2. What is the health impact of increased fluoride retention due to renal inadequacy?

A 2014 study published in Toxicology titled "Effect of water fluoridation on the development of medial vascular calcification in uremic rats" concluded, "WHO's recommended concentrations in drinking water become nephrotoxic to CKD rats, thereby aggravating renal disease and making media vascular calcification significant." Let us restate this, **estimated safe fluoridation levels for 'dental health' kills kidney cells when kidneys are operating at less than optimum efficiency**.

Although the National Kidney Foundation withdrew their support of CDC/ADA sanctioned water fluoridation in 2008, the politically correct NKF maintains a "***neutral***" position, stating it may be "*prudent*" to "*monitor*" fluoride intake of children, the elderly, and anyone with prolonged disease. This weak position seems to be the result both false assumptions and false logic, i.e. that the perceived (if small) dental benefit of fluoride overrides the risk of kidney disease and that benefit is only achievable through a policy of water fluoridation.

The fluoride excretion by kidneys of infants and young children is less efficient than in "healthy adults." The elderly also have less efficient kidneys. Dr. Mark Diesendorf has written extensively on the fluoride risk to infants whose intake can be many times higher than the IOM AI and whose bones are growing so rapidly.

One in three American adults is at risk of developing kidney disease. Many of the 26 million with kidney disease don't know their kidneys are compromised until their disease reaches stage 4. Kidney disease is 3 to 4 times higher among the same non-white populations living in fluoridated communities who have double the incidence of dental fluorosis.

Symptoms of excessive build-up of fluoride due to poor excretion are the usual inflammatory, gastrointestinal, auto-immune and bone disease symptoms of fluoride toxicity. They are very easy to mislabel and dismiss, like most low-dose chronic poisoning, but they result in disability.

The inadequate assessment of renal function that the NRC and other committees refer to are two 1940s controlled dose studies of "**five healthy young men**" that resulted in increasing the proposed safe level of fluoride concentration from 0.1 ppm to 1.0 ppm (in Waldbott pp. 48, 354-355).

EPA scientists, engineers and lawyers in NTEU 280 stated in the 1980s and 90s that they were prevented from publishing truthful conclusions from kidney, liver and other fluoride toxicity studies because those results conflict with the US policy supporting water fluoridation, a policy underpinned by the IOM DRI "adequate intake."

It's been known since the 1960s that using fluoridated water in dialysis can result in a sudden and painful death for the kidney patient. Kidney patients have reported that their kidney health has improved once they removed fluoride from their diet. Those who must avoid fluoride also report how difficult it is to avoid fluoride when water is fluoridated. Even leafy greens and fruits with their

high water content can be problematic, as is anything made with water, such as sorbet or rice.

A 2007 study from China concluded, “water fluoride levels over 2.0 mg/L can cause damage to liver and kidney functions in children” and that **kidney damage is correlated with dental fluorosis**. This should be of concern to the IOM and residents of the US, because our daily dose of fluoride in our over fluoridated environment is not limited to water. The visible evidence is seen in the fluorosed teeth of approximately half of our population under age 20.

A 2014 review of fluoridation referenced a 1991 CDC report of total fluoride intake for those living in fluoridated communities as between 1.58 and 6.6 mg per day for adults and between 0.9 and 3.6 mg per day for children. In other words, Americans regularly ingest amounts of fluoride capable of causing kidney disease, and have been for years. Note that approximately half of adolescents living in fluoridated cities exhibit the dental fluorosis that was correlated with kidney disease in the Chinese study, an expected dose-response relationship to poison.

There is sufficient evidence to indicate that the ubiquitous fluoride in our diets is destroying the kidneys of many of us in a less dramatic fashion than fluoridated water used in dialysis kills patients, but nevertheless killing us one kidney cell at a time. There is ***no*** safe and adequate level of fluoride for anyone with reduced kidney function or who is at risk for kidney disease.

RESOURCES: *see endnotes*

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CLOSING

Prior to World War II, scientists and doctors were united in their statement that fluorine was a **poison**, and that exposure to all types of fluorides at any level was harmful to life. Pregnant women and children up to age 12 were specifically called out as needing protection from fluoride exposure. Communities were encouraged to remove fluoride from their water supplies and most of the pollution cases in the US were against industrial fluoride producers. That opinion changed suddenly and over the objections of many renowned scientists and medical organizations. That change was based on a medical hypothesis, dental myth, biased and since debunked “trials” masquerading as science, and governmental policy. Simply stated, any assumption that dietary fluoride is good for teeth is without merit while the evidence of harm is scientifically and clinically documented many times over.

The IOM is now a **'learned intermediary'** of the modern science consistent with the earlier medical view, i.e. 21st century science that demonstrates the harmful health effects of chronic low level ingestion of fluoride on vulnerable members of our society.

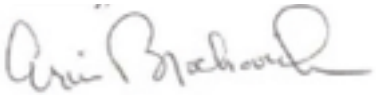
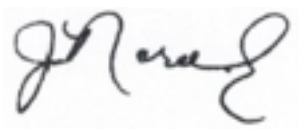
Summary:
- Fluoride is an enzyme poison and an endocrine disruptor
- Fluoride is a potent adjuvant… causing or worsening allergies
- Fluoride is a proliferative agent... causing or worsening inflammation
- Fluoride accumulates in bones and tissue... causing or worsening arthritis and other ailments
- Fluoride impacts thyroid hormones… resulting in both hypo and hyper disorders
- Fluoride interferes with glucose metabolism… a concern for diabetics
- Fluoride causes dental fluorosis… disproportionately by race and social economic status
- Fluoride is neurotoxic to fetuses, infants and young children… resulting in permanent deficits
- Fluoride is a burden to kidneys... resulting in increased fluoride retention and possible renal damage in those with kidney disease.

Please take note, this communication constitutes official notice to the NAS and IOM leadership as well as the Food and Nutrition Board through its registered agent. Failure to address the current fluoride DRI and assertions in NAS/IOM reports regarding safe levels of fluoride for pregnant women, fetuses, young children, the elderly, and those with health conditions or a genetic profile that increases their susceptibility as noted in this document with parties using that material in the making of individual and public health decisions may result in legal action.

What is necessary:

1. A communication to all state Departments of Health rescinding the fluoride DRI as listing intake levels that cannot be presumed safe, including instructions to forward that communication to municipal Boards of Health, Water Commissions and Early Childhood organizations in their state.
2. Clarification to the general public and to governmental organizations, i.e. CDC, that the fluoride added to our water supplies is neither a mineral nor a nutrient nor is this trace element generally beneficial to human health. Any perceived dental benefit is only scientifically justifiable when fluoride is used in a topical application, and systemic exposure to this toxin is harmful even at very low doses for many in the general public.

Signatories

 Erin Brockovich Consumer Advocate	 Wm. A. Ingram, M.D. President, AAEM	 David P. Matthews, J.D. Plaintiff Attorney
 Daniel A. Eyink, M.D. Newburyport, MA	 Jean M. Nordin-Evans, D.D.S. Groton Dental Wellness	 Stephanie Seneff, Ph.D. Senior Research Scientist, MIT

Prepared by: Karen Spencer
Attachment: Questions & Statements

CC: Health Leadership	NRC Fluoridation Opponents	Media
U.S. Surgeon General Vivek Murthy	Dr. Kathleen Thiessen	Douglas Main at Newsweek
GOP Doctors Caucus, Congress	Dr. Hardy Limeback	Charlie Rose at PBS & CBS
Physicians for Social Responsibility	Dr. Robert Isaacson	Joyce Riley host of The Power Hour
Senators	**US Representatives**	
Sen. Elizabeth Warren (MA)	Rep. Seth Moulton (MA)	Rep. Mike Simpson (ID)
Sen. Ed Markey (MA)	Rep. Jim McGovern (MA)	Rep. Peter DeFazio (OR)
Sen. Bernie Sanders (VT)	Rep. Chris Gibson (NY)	Rep. Mia Love (UT)
Sen. Richard Blumenthal (CT)	Rep. Collin Peterson (MN)	Rep. Markwayne Mullin (OK)
Sen. Barbara Boxer (CA)	Rep. John Conyers (MI)	Rep. Mike Conaway (TX)
Sen. Mark Warner (VA)	Rep. Dana Rohrabacher (CA)	Rep. Raúl Grijalva (AZ)
Sen. Bob Casey (PA)	Per. Loretta Sanchez (CA)	Rep. Donna Edwards (MD)
Sen. Cory Booker (NJ)	Rep. Judy Chu (CA)	Rep. Bonnie W. Coleman (NJ)
Sen. Pat Roberts (KS)	Rep. Don Young (AK)	Rep. Steve Cohen (TN)
Sen. Ted Cruz (TX)	Rep. Tulsi Gabbard (HI)	Rep. John Lewis (GA)

END NOTES: *References & Resources*

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More Quotes from Experts

Expert in Neurotoxicity & Behavioral Psychology: *"*The addition of fluorides to drinking water was, and is, a mistake." - *Dr. Robert Isaacson, 2006 National Research Council Scientist (2007)*

Expert on Medical Chemistry: "Community water fluoridation is a malignant medical myth." - *Dr. Joel Kauffman, Professor Emeritus in Chemistry (2006)*

Expert on Dental Research: "Water fluoridation is the greatest case of scientific fraud of the twentieth century." - *Dr. Philip R.N. Sutton (1996)*

Expert on Neuroscience: "Prevention of chemical brain drain should be considered at least as important as protection against caries." - *Dr. Philippe Grandjean, Chair of Environmental Medicine at the University of Southern Denmark and Adjunct Professor of Environmental Health at Harvard School of Public Health. (2014)*

Expert on Environmental Protection: "The EPA's solution to fluoride pollution is dilution!" - *Dr. Wm Hirzy, VP NTEU 280 and Risk Assessment Scientist, EPA (2001)*

Expert in Medical Research Review: "Previously neutral on the issue, I am now persuaded by the arguments that those who wish to take fluoride (like me) had better get it from toothpaste rather than the water supply." - *Douglas Carnall, British medical writer after reviewing the 2000 York Review (2003)*

Expert in Sustainability & Innovation: "A good scientist spends his whole career questioning his own facts. One of the most dangerous things you can do is believe." - *Nigel Noriega, Environmental Scientist and Endocrine Biologist (2011)*

Expert in Fluoridation Activism: "Tooth decay is a disease of poverty. Feed these children; don't fluoridate them!" - *Paul Beeber, esq., New York State Coalition Opposed to Fluoridation (2003)*

Expert in Dental Public Health: "It is my best judgement, reached with a high degree of scientific certainty, that fluoridation is invalid in theory and ineffective in practice as a preventive of dental caries. It is dangerous to the health of consumers." - *Dr. John Colquhoun, former chief Dental Officer of New Zealand (1993)*

Expert in Medicine and Social Responsibility: "Studies in animal and human populations suggest fluoride exposure, at levels that are experienced by a significant proportion of the population whose drinking water is fluoridated, may have adverse impacts on the developing brain." - *Greater Boston Physicians for Social Responsibility (2000)*

Expert in Social Planning: "Even today there are no legal constraints against the suppression of scientific data from privately funded studies….Some members of the medical community are calling for a public database on clinical trials, so that data unfavorable to a sponsor will not be suppressed." - *Sheldon Krimsky, professor of urban and environmental policy and planning at Tufts University. Author of "Science in the Private Interest" (2004)*

Expert in Consumer Protection: "It's way overdue for this country to have an extended and open scientific and regulatory debate on fluoridation.'" – *Ralph Nader (2011)*

Expert on Legal Decision Making: "Marginal benefit in exchange for significant risk is the *sine qua non* of gross disproportionality…the stronger the scientific evidence of risk of harm, the greater the gross disproportionality." - *Nader R. Hasan, esq. (2014)*

Questions & Statements

This attachment to the IOM communication dated April 27, 2015 assumes that all the resources referenced in that communication will be thoroughly examined by the IOM.

It is expected that the IOM in fulfillment of their mission to '**ask and answer the nation's most pressing questions about health and health care**' will want to engage in some sort of event to '**facilitate discussion, discovery, and critical, cross-disciplinary thinking**.'

As an aid to that process, we are suggesting some questions for consideration and providing a few statements from leading scientists on the topic of dietary fluoride and water fluoridation, some but not all of which were included in the resources of the communication. We certainly expect the IOM to expand this list which is offered simply as a starting spot.

1. **Question**: Is it responsible for the IOM to publish an estimated safe & adequate intake (AI) of "fluoride," a toxin that includes other elements, in the "Dietary Guide to Nutrient Requirements" on the same table as iodine and calcium?

2. **Question**: Are the conclusions in the 1997 IOM report used to establish the 1997/2006 estimated safe & adequate intake (AI) of fluoride (or fluorine) valid in the light of recent science regarding the toxic effects of fluoride?

3. **Question**: Is any IOM estimated safe & adequate intake (AI) of fluoride in the best interest of human health, given current understanding of the risks of fluoride ingestion?

4. **Question**: Should Boards of Health and medical professionals be relying on the IOM estimated safe & adequate intake (AI) of fluoride on the DRI table as a "public good" justification for municipal water fluoridation?

5. **Question**: What is the environmental risk of fluoridated waste water?

6. **Question**: Is a fluoridated water supply safe for the most vulnerable residents, such as the very young, elderly and those with prolonged health conditions, i.e. endocrine disorders, kidney disease, and autoimmune disease?

7. **Question**: Is it responsible for the IOM to assume any estimated safe & adequate intake (AI) of fluoride protective of the health of fetuses, young children, those with thyroid disorders, diabetes, kidney disease, autoimmune disease or environmental sensitivities when "fluoride," an inorganic chemical toxin, in common usage refers to ***several substances*** used intentionally and unintentionally in our water supplies as a dietary supplement, i.e. fluorosilicic acid, sodium fluorosilicate, calcium fluoride, aluminum fluoride, etc.?

STATEMENTS OPPOSING FLUORIDATION: *hyper-linked*

A. 1999 Letter to BSA Environmental Services from Dr. Phyllis Mullenix, *toxicologist*
B. 1998 Letter to Santa Cruz, CA Board of Supervisors from Dr. David Kennedy, *dentist*
C. 2007 Letter to UK Health Authority from Dr. Hardy Limeback, 2006 NRC, *dentist*
D. 2014 Letter to Israeli Minister of Health from Dr. Hardy Limeback, 2006 NRC, *dentist*
E. 2007 Position Statement by Dr. Robert Isaacson, 2006 NRC, *expertise in neurotoxicity*
F. 2014 Affidavit from Dr. Kathleen Thiessen, 2006 & 2008 NRC, *expertise in risk assessment*
G. 2014 Letter to FDA from Dr. Robert Sauerheber, *chemist*
H. 1993 Expert Affidavits (23) of documented harm caused by water fluoridation, *MD, PhD, etc.*

KSpencer