



Response to Oregon NAACP Antifluoridation Letter

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The recent antifluoridation letter addressed to Governor Brown, and the Oregon Legislature, from leaders of the NAACP in Oregon, perfectly demonstrates the need for legislative action to mandate fluoridation in this state. It is unfortunate that African-American leaders who sincerely seek the best for their constituents, are being misled by misinformation from fluoridation opponents and their organizations, but, as the following clearly exposes, that is precisely what is happening. Until fluoridation opponents begin to respect the truth, and cease the willful dissemination of unsubstantiated claims, misrepresentation of science, and patently false information, the general public is completely hampered in its ability to make rational decisions on this issue, based on the best available evidence. It is therefore necessary for elected officials to act on their behalf, as these leaders have been elected to, in the best interests of all citizens.

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1. Letter: *"There is substantial new scientific evidence that highlights the risks of water fluoridation. The US Center [sic] for Disease Control (CDC) and others found that children are being significantly overexposed to fluoride, with 41% of US children ages 12-15 showing visible signs of fluorosis, i.e. excessive intake fluoride intake. (CDC national NHanes survey 1999-2004)"*

Facts:

A. There is no valid, peer-reviewed scientific evidence which demonstrates any risk from optimally fluoridated water.

B. The authors fail to differentiate between dental fluorosis, and skeletal fluorosis. Skeletal fluorosis is so rare in the US as to be nearly non-existent. Assuming them to mean dental fluorosis, they fail to differentiate between the different levels of this effect.

C. The "41%" figure is in reference to a 2010 CDC study by Beltran-Aguilar in which 41% of adolescents they examined were found to have signs of dental fluorosis. This 41% was composed of 37.1% with mild to very mild dental fluorosis, both of which are barely detectable, benign effects requiring no treatment, and which have no effect on cosmetics, form, function, or health of teeth....with the other 3.8% being those with moderate dental fluorosis, attributable to improper ingestion of toothpaste and/or exposure to abnormally high levels of environmental or well-water fluoride during the teeth forming years of 0-8. (1)

In attempting to induce unwarranted fear about dental fluorosis the authors ignore the lifetimes of extreme pain, debilitation, development of serious medical conditions, loss of teeth, and life-

threatening infection directly resultant of untreated dental decay which can be, and is, prevented by water fluoridation.

2. *Letter: African American and Latino communities are at particular risk, with the rate of moderate/severe fluorosis among African Americans at almost twice that as whites, and the rate mild fluorosis over twice as high. (CDC national NHANES survey 1999-2002).*

Facts:

A. Assuming the authors to mean dental fluorosis, moderate/severe dental fluorosis does not occur resultant of optimally fluoridated water. As noted by the 2006 NRC Committee on Fluoride in Drinking Water, severe dental fluorosis does not occur in communities with a water fluoride content of 2.0 ppm, or below. Water is fluoridated at 0.7 ppm, one third that threshold. (2)

B. From Arora, Kim, Kumar, et al:

- *African American children living in fluoridated communities experienced the same odds of developing enamel fluorosis as that experienced by children of other racial and ethnic groups. No effect of race/ethnicity on the development of enamel fluorosis was observed in this study.*
- *Results of our analysis indicate that the pattern of fluorosis that appears is better explained by fluoride exposure and not race/ethnicity.*
- *The use of race/ethnicity in epidemiologic research is problematic. While there may be genetic markers that can be linked to fluorosis, race/ethnicity is not a meaningful construct for addressing that concern.* (3)

C. Mild dental fluorosis is a benign, barely detectible effect which causes no adverse effect on cosmetics, form, function, or health of teeth. As peer-reviewed science has demonstrated mildly fluorosed teeth to be more decay resistant, many consider this effect to not even be undesirable, much less adverse. (4)

The below are depictions of the levels of dental fluorosis, courtesy of the CDC:



---http://www.cdc.gov/fluoridation/faqs/dental_fluorosis/index.htm

3. *Letter: While longtime fluoridation promoters continue to deny that excessive fluoride exposure is a problem, it is significant that last year the Federal Department of Health and Human Services lowered the maximum fluoride levels allowed in drinking water by 40%, in response to the data showing children were receiving too much fluoride. This is of particular concern for families that would rely on fluoridated water to mix infant formula. Lower-income African American and Latino families may not have the option to purchase bottled water or water filtration systems compared to more affluent families, constituting unfair and unequal access to children's health choices.*

Facts:

This is false.

A. The "Federal" DHHS does not set maximum allowable levels of fluoride in drinking water. This jurisdiction falls under the US EPA. The maximum allowable level of fluoride in drinking water (MCL), as mandated by the EPA, is 4.0 ppm. This has not changed.

To what the authors are erroneously referring is the recent resetting of the recommended optimal level of fluoride by the US Department of Health and Human Services. The optimal level of fluoride in drinking water is that recommended level at which maximum dental decay prevention has been observed to occur, with no adverse effects. This optimal level was originally set by the US Public Health Service in 1962, as a range of 0.7 ppm to 1.2 ppm. It was set as a range in order to allow for different amounts of water consumption between different climates. Recent scientific evidence has demonstrated that, due to air-conditioning and other modern amenities, there no longer exists any significant difference in water consumption due to climate differences. Thus, there is no longer a need for a range. In recognition of this fact and of the greater availability of fluoride now, than when the optimal was originally established, the CDC, in 2011, recommended that the optimal range be consolidated into simply the low end of that range, 0.7 ppm. After several years of careful study and consideration as to whether this consolidation would significantly reduce the dental decay prevention of fluoridation, the US DHHS determined that it would not. Thus, in keeping with the original goal of providing maximum dental decay prevention while minimizing any risk of adverse effects, the US DHHS in 2015 announced that the optimal recommendation had been officially consolidated into the low end of the previous optimum range. The current optimal level is 0.7 ppm, the level at which most water systems have been fluoridating for years, anyway.

B. There is no need for anyone to buy bottled water or to filter fluoride out of water used for infant formula. This is simply an option which is available for those who wish not to use optimally fluoridated water to reconstitute powdered infant formula. Neither the American Dental Association, the US CDC, nor any other credible entity has ever recommended against using optimally fluoridated water to reconstitute powdered infant formula, however.

From the CDC:

"You can use fluoridated water for preparing infant formula. However, if your child is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance for mild dental fluorosis. To lessen this chance, parents can use low-fluoride bottled water some of the time to mix infant formula; these bottled waters are labeled as de-ionized, purified, demineralized, or distilled."

---http://www.cdc.gov/fluoridation/safety/infant_formula.htm

C. Those who are being denied unfair and equal access to children's health choices are those who are being deprived of the dental decay prevention provided by fluoridated water.

4. Letter: Third, there is scientific evidence showing that fluoridation chemicals increase lead leaching from plumbing. As we are already facing a lead crisis in drinking water in schools and households, officials charged with protecting public health should not attempt to add any substance to our drinking water that could potentially increase already dangerous lead levels.

Facts:

Water fluoridation additives do not cause corrosion of drinking water pipes and infrastructure. The most common fluoridation additive used in the United States for over the past 60 years has been hydrofluorosilicic acid (HFS). This additive actually helps to inhibit corrosion of infrastructure.

HFS when added to water as a fluoridation additive immediately dissociates into fluoride ions, hydrogen ions, and silica (sand). It is the silica which helps to stabilize the drinking water pipe surface to protect it against corrosion. Silica is but one of several additives that water utilities use to stabilize the internal aspect of drinking water pipes.

Below is a direct copy of information available on the CDC's website:

"The concern that using fluorosilicate additives to fluoridate drinking water causes water system pipes to corrode is not supported by science. At the level recommended by the U.S. Public Health Service for fluoridation of public water supplies (0.7 mg/L, or parts per million), the fluoride ion has little influence on either corrosion or on the amounts of corroded metals released into the water. Fluorosilicates contribute to better water stability with less potential for corrosion, because silica stabilizes the pipe surface."

<https://www.cdc.gov/fluoridation/engineering/corrosion.htm>

5. Letter: Finally, we believe that the Governor, the state legislature, and state officials should focus on promoting real solutions to improve children's dental health - such as increasing access to dental care and good nutrition instead of continuing to push the extremely divisive issue of fluoridation.

Facts:

Advocating for one preventive healthcare measure does not preclude advocating for all other viable ones. Efforts to improved access to dental care, good nutrition, proper oral hygiene, proper home care techniques, and other preventive measures have been ongoing for decades, if not centuries. These efforts do not cease with fluoridation, nor could they be any greater in the absence of fluoridation advocacy.

The reality is that untreated dental decay is a problem of overwhelming magnitude in all areas of this country. We need all the help we can get if we are to ever make significant inroads into it. At a cost of less than \$1 per person, per year for water fluoridation, this initiative is by far the most cost-effective means we have available to prevent a significant amount of dental decay in entire populations. In the face of such an overwhelming health problem, it makes no sense to undermine the most effective means we have to prevent it on a large scale.

6. Letter: The Portland NAACP, the Eugene NAACP, and a large majority of Oregonians will not support adding fluoridation chemicals like hydrofluorosilic acid to our drinking water.

Facts:

The substance most widely utilized to fluoridate water systems is hydrofluorosilic acid (HFA). HFA is a co-product of the process which extracts the other co-product, phosphoric acid, from naturally occurring phosphorite rock. Phosphoric acid is used in soft drinks we consume and in fertilizers which become incorporated into foods that we eat. The HFA co-product is diluted to a 23% aqueous solution which is utilized to fluoridate water systems. To irrationally fear one co-product of this process is to irrationally fear the other. (5)

Once introduced into drinking water, due to the pH of that water (~7), the HFA is immediately and completely hydrolyzed (dissociated). The products of this hydrolysis are fluoride ions identical to those which have always existed in water, and trace contaminants in barely detectable amounts that are so far below US EPA mandated maximum allowable levels of safety that it is not even a certainty that those detected aren't that already exist in water naturally. (6)

7. Letter: The was certainly born out in the most recent 2013 vote in Portland, where despite fluoridation promoters having very large funding advantage, voters overturned Portland City Council's decision to fluoridation chemicals to the drinking water with an impressive 61% of the vote.

Facts:

In actuality the rejection of fluoridation in Portland was made by 61% of X% of registered voters who turned out. While this is the reality with which we abide in our elections, it nonetheless is a complete skewing of the facts to imply that this was an overwhelming rejection by the citizens of Portland. It obviously was not, with children having no vote at all. In assessing healthcare needs of our citizens, decision-makers must look at the best interests of all citizens, not simply those of a very vocal minority which constitutes but a fraction of the total population.

References

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