July 19, 2019

Board of Directors
Executive Leadership Team
Great Lakes Water Authority
735 Randolph St., Suite 1900
Detroit, MI 48226

This letter is offered to encourage GLWA to provide its customer communities with complete, balanced and accurate information about the risks of lead in water, and about the contamination that occurred in the Flint, MI, water crisis.

On May 9, 2019, GLWA held a Water Quality Workgroup webinar. While the agenda related primarily to Per- and Polyfluoroalkyl Substances (PFAS) issues, GLWA also chose to distribute a single March 2019 article by Gómez et al.[i] This article concludes that the authors' analyses of blood lead levels (BLLs) "do not support the occurrence of a global increase in BLLs in young children of Flint during the entire 18-month period of FRW [(Flint river water)] exposure."

During the webinar, GLWA staff indicated that they were providing the Gómez article to provide workgroup members with recently published information. As noted during the webinar, it is disconcerting that this single, narrowly focused article would be provided without accompanying context. The conclusions presented in Gómez's articles on the Flint water crisis are at variance with the great majority of existing research and have little relevance when considered in the appropriate context.

In the spirit of providing workgroup members with recently published information regarding the Flint water crisis, we have attached a broader, yet still partial, reference list.

A plethora of reports and articles document the high lead levels that occurred in Flint drinking water and the related implications. Elevated Flint water lead levels were initially reported by EPA's Del Toral[ii] in June 2015. Virginia Tech's Flint Water Study team, in collaboration with citizen scientists, collected, analyzed and transparently shared Flint water lead level data.[iii] Increased water lead levels were also noted in MDEQ's own monitoring[iv] and in multiple other publications to date.[v, vi, vii, viii, ix , x, xi, xii, xiii]

Reports and research regarding elevated water lead levels should be ample to warrant concern and action, especially when considering a contaminant with a Maximum Contaminant Level Goal of 0 ppb. Yet it required evidence of harm to children in Flint before anyone with authority acknowledged the concerns that had been raised by residents for nearly 18 months.

In 2015, Dr. Mona Hanna-Attisha's original blood lead research[xiv] showed an increase in the percentage of elevated blood lead levels geographically correlated with the Flint water system. Her findings were validated by the State of Michigan[xv] and the United States Centers for Disease Control and Prevention (CDC)[xvi] with the larger state surveillance blood lead data. Similar findings were also seen by other researchers – further defining exposure risk by temporal phases,[xvii, xviii, xix] potential other lead exposure sources,[xx] and geography and water age.[xxi] Additional research has also noted changes in blood lead levels of not only children in Flint, but also in animal[xxii] and adult[xxiii] populations. Of note, and equally worthy of sharing with GLWA membership, the most recent publication by Roy et al[xxiv] applied an innovative application of biosolid (ie: sludge) analysis to establish a correlation between temporal increases in Flint's sludge lead levels and a rise in blood lead levels.

As you may know, retrospective blood lead level research has limitations, since blood lead surveillance programs are designed to detect maximum exposure risk from other household lead sources (e.g., paint, dust, soil) and not water. Other limitations include the short window for detecting lead in blood (blood lead levels have a half-life of approximately one month), as well as low screening rates for blood lead levels. As a result of these limitations, it is nearly impossible to draw definitive conclusions about water lead exposure from blood lead survellience data. At best, blood lead analyses for lead in water exposure provide an underestimation.

Preoccupation with blood lead analyses to establish arguments such as blood lead levels didn't increase that much, blood lead levels were worse decades ago, or blood lead levels are worse in other cities only distract from the inarguable fact that there is no safe level of lead in the human body. Our drinking water focus should be primary prevention - the detection and elimination of lead in water. A legacy of pollution and neglect must never be used to justify intentional disregard for the drinking water needs of people in underserved communities. These types of dismissals will continue to allow water crises like Flint to happen in our most vulnerable communities and to cast doubt on the intentions of the water utilities that serve them.

In our view, the Gómez article and the subsequent efforts to promote it are reminiscent of some of the most appalling aspects of the Flint water crisis that Eric helped investigate as a member of the Flint Water Advisory Task Force:[xxv] denial of science and facts, disrespect for lead's neurotoxicity, and dismissal of the needs of a marginalized population by those with power and privilege.

Rather than adopting our perspective, or that of those who have embraced efforts to minimize the Flint water crisis, we would simply suggest that GLWA has an obligation to provide balanced, accurate, and complete reporting. Scientific rigor will speak for itself.

(For completeness' sake, additional Flint water crisis references regarding psychological trauma[xxvi] and legionella[xxvii, xxviii, xxix, xxx] are also included.)

Sincerely,

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