



The Honorable Debbie Stabenow  
Chairwoman  
Senate Agriculture Committee  
731 Hart Senate Office Building  
Washington, D.C. 20510

The Honorable John Boozman  
Ranking Member  
Senate Agriculture Committee  
141 Hart Senate Office Building  
Washington, D.C. 20510

June 8, 2021

Dear Chairwoman Stabenow, Ranking Member Boozman, and Committee Members:

We, the undersigned, urge you to consider children's access to **safe and appealing<sup>1</sup> drinking water** as an important component of healthy school meals for all children.

Specifically, we recommend that the following priorities be included in child nutrition reauthorization in order to improve children's drinking water safety and access:

#### **In School Nutrition Programs (NSLP, SBP, SFSP, CACFP Afterschool Snack/Supper)**

- School cafeteria drinking and cooking water should be safe. **Require and fund testing and remediation for lead** in school cafeteria and kitchen tap water.<sup>2</sup>
- All children should have ready access to more than sips of water during the school day.<sup>3</sup> Ensure that all schools have at least one **water bottle filling station** in a high-traffic area accessible throughout the day, with filtration if needed, and provide funding for water bottle filling station equipment and installation costs.<sup>4</sup>
- Request that **USDA report to Congress** on specific checkpoints USDA has added to on-site Administrative Review to ensure that there is effective oversight of drinking water safety and access.

#### **In Child and Adult Care Food Program**

- All water used for drinking, formula preparation and cooking in CACFP childcare programs should be safe. **Require and fund testing and remediation for lead** at all taps used for drinking and cooking water.<sup>5</sup>
- Request that **USDA report to Congress** on specific checkpoints USDA has added to CACFP monitoring site visit instruction to ensure that there is effective oversight of drinking water safety as well as CACFP's excellent provisions for access.

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## In Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

- WIC should provide a **temporary disaster additional benefit for drinking water** during emergencies.
- We recommend that USDA, in collaboration with other appropriate stakeholders, develop and disseminate a **WIC nutrition education** component on healthy hydration habits and drinking water safety.

Our school and childcare legislative recommendations are also included in a letter to you signed by National Alliance for Nutrition and Activity (NANA) members. The recommendation to improve USDA's Administrative Review and CACFP monitoring instruction has already been provided to USDA FNS. The Appendix to this letter provides background and rationale for our recommendations.

Please support healthy hydration for all children in our nation by maximizing the ability of schools, childcare and WIC to ensure safe and appealing drinking water through the federal child nutrition programs.

Thank you for your consideration of these recommendations.

The undersigned organizations and individuals,



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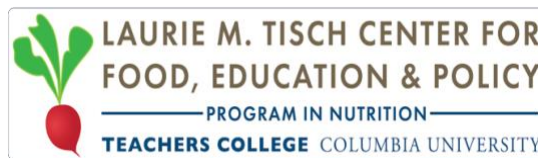
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## Appendix: Background and Rationale

### Importance of access to drinking water

As a matter of public health, consumption of plain **water is a healthy substitute for sugary drinks** that contribute to children's tooth decay and obesity and increase their risk of developing type 2 diabetes and other metabolic diseases, obesity, and cardiovascular diseases.<sup>6,7,8,9,10</sup> Even in the earliest years, disparities arise in these chronic conditions.<sup>11</sup> Sugary drinks (drinks with added sugar such as sodas, sports and energy drinks, and juice drinks) are a key target because they are the largest contributor of added sugars and a major source of dietary calories.<sup>12</sup>

Water is essential to maintain, optimize, and improve the health of students,<sup>13</sup> and may improve cognition,<sup>14,15,16</sup> focus<sup>17,18</sup> and mood.<sup>24,19,20</sup> When drinking water is fluoridated it is proven to protect against dental caries,<sup>21</sup> the most common chronic disease among American children.<sup>22</sup> On a given day, children who do not drink any water consume twice the calories from SSBs when compared to children who drink water.<sup>23</sup>

Outside of home, children spend most of their time in schools and childcare facilities. Low-income children in particular are likely to spend time in schools participating in the National School Lunch Program (NSLP) and the Child and Adult Care Food Program (CACFP). To support healthy hydration, the Healthy, Hunger-Free Kids Act of 2010 (HHFKA) imposed a requirement that potable water be made available in these school and childcare nutrition programs.

This requirement is important because one in two children aged 6-19 in the U.S. is not adequately hydrated, with disparities by race and gender.<sup>24</sup> For some children, the child nutrition programs may be their most reliable source of safe and appealing drinking water.<sup>25</sup> Improving water access and promotion is especially important for low-income and minority children who are at higher risk for obesity,<sup>26</sup> report more negative perceptions about tap water,<sup>27</sup> and have poorer beverage intake habits.<sup>27,28</sup>

### Data suggest drinking water access in U.S. schools is unsatisfactory

The 2014-15 USDA School Nutrition and Meal Cost Study reported that 95% of schools were observed to meet the HHFKA mandate to provide drinking water access at mealtimes.<sup>29</sup> However, USDA observed that only one in two schools offered drinking fountains within the cafeteria while another one-third of fountains were placed within 20 feet of the cafeteria, and that fewer than one in four schools offered water dispensers or coolers in the cafeteria. At the time of the study, only 3% of schools offered water bottle filling stations.

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Concerns over water quality and cleanliness can lead students to avoid drinking fountains.<sup>30,31</sup>

A nationally representative observational study of drinking water access in schools has never been performed. However, using a photo-documentation tool, in a 2016 convenience sample of 325 water sources in forty racially, economically and geographically diverse U.S. schools, 37% of cafeteria water sources had a cleanliness issue; 23% had less than satisfactory water flow; 8% were broken or had no water flow; only 7% provided cups, and less than 1% had promotional signage.<sup>32</sup>

A 2016 observational study in Massachusetts public schools found 30% of drinking water sources were broken or appeared dirty at any given time.<sup>33</sup> Observations in a representative sample of 240 California public schools in 2016-2018 found over 75% made water available. However, only 18% met all of the study's criteria for excellence in effective access.<sup>34</sup> Criteria include administrators' perception that water is safe and appealing and that water sources are clean and functional, provision of water in at least four of five key school locations, at least one water source that allows more than sipping, and a high density of water sources.<sup>35</sup>

### **Drinking water safety in schools and childcare**

While the HHFKA may have assumed that tap water is uniformly safe and accessible, studies since then show this is not always the case. Almost 8% of U.S. public water suppliers (utilities), primarily small and rural, are in violation of one or more Safe Drinking Water Act health-based standards for drinking water quality<sup>36</sup> (these are contaminants other than lead). In a random sample of 240 California schools, 16% of study schools received water from a utility that was in violation of health-based standard for drinking water at the time of the study.<sup>37</sup>

With regard to lead, drinking water contributes about 20% of overall lead exposure (the primary exposure is from lead in soil and dust), however since no level of lead is safe and lead levels in tap water can be very high, it is important to address this source of children's lead exposure.<sup>38</sup> Lead is a concern in school and childcare drinking water. Four reports highlight presence of lead in school drinking water.<sup>39</sup> An analysis of all available data on lead in school drinking water found that 44% of *schools* had at least one tap with lead over the state's action level, while 12% of all tested *taps* had lead over the state's action level.<sup>40</sup> California has relatively few exceedances of lead standards, but an analysis of the state's school drinking water lead testing results found that, while only 3% of schools had at least one sample over 15 ppb, 16% of schools had a sample over 5 ppb (the FDA standard for bottled water).<sup>41</sup> Drinking water lead levels in the childcare setting have had almost no study but exposures are likely to be higher, not lower, than in schools since childcare sites are more likely than schools to have lead service lines.



## **Environmental considerations**

It should be noted that drinking water in any form, and particularly tap water, has a smaller environmental footprint than other beverages.<sup>42</sup>

## **Women, Infants and Children (WIC) special circumstances**

Incidents such as elevated lead in Flint and Newark and natural disasters, such as climate change emergencies in Texas and southern coastal states, show that there are times and places when public water systems fail to provide safe tap water. Bottled water costs are an added burden for limited resource households. The Women, Infants and Children (WIC) program serves low-income and at-risk pregnant, lactating women and their infants and young children. WIC households shouldn't have to choose between access to safe drinking water and other daily essentials.

In general, pregnant and lactating women, infants and young children are more vulnerable to the toxic effects of contaminated drinking water. Further, infancy is a critical time to set healthy beverage habits because infants' innate preference for sweet flavors, combined with exposure to sweet foods/beverages, influence lifetime taste preferences,<sup>43,44,45</sup> and during infancy, parents establish feeding practices that may be setting lifelong nutrition and health habits for their children.<sup>46</sup>

## **Lead in drinking water with reference to WIC population**

Lead is a proven toxin, particularly for infants and young children. Infants are more vulnerable to adverse outcomes of lead exposure owing to high volume of water intake per body weight, increased lead absorption and rapid neuro-cognitive development.<sup>47</sup> Even low exposure to lead can reduce child IQ and is associated with attention deficit and problem behaviors;<sup>48,49</sup> modelling shows that even low-level lead exposure reduces population IQ.<sup>50,51</sup> Infants and children in WIC have been observed to be three times more likely to have elevated blood lead levels.<sup>52</sup>

Homes in low-income communities are more apt to have lead exposures including lead service lines and lead in antiquated plumbing parts. There is limited data on lead in tap water in residential settings because public utilities are required regularly to test only a fraction of taps to monitor for lead in drinking water,<sup>53</sup> however, a 2018 study of tap water in high-risk homes in New Orleans, found that though only 1% of all home water samples were above 15 ppb of lead, 12% were above 5 ppb (the FDA limit for bottled water) and 60% were above the American Academy of Pediatrics recommended level of 1 ppb.<sup>54</sup>



Lead ingested through tap water is a particular risk for infants fed powdered formula reconstituted with tap water. Sixty percent (60%) of U.S. infants 0-11 months are formula fed<sup>55</sup> and through formula they consume about 4 cups of water per day which means that 40-100% of their exposure to lead is through water used to mix formula.<sup>56</sup> Infants in WIC are more likely to consume formula than non-WIC participants.<sup>57</sup>

Risks of lead exposure during pregnancy and lactation can include elevated lead in the fetal brain and adverse outcomes of pregnancy; while lead can be detected in breastmilk, breastfed infants are generally at lower risk of lead exposure than are infants fed formula.<sup>58</sup> Lead exposure in US women of childbearing age is generally low yet identifying high-risk women (increased maternal age, race/ethnicity, poverty, immigrant) remains a public health need.<sup>59</sup>

**About National Drinking Water Alliance:** the [National Drinking Water Alliance](#) is a network of researchers, public health professionals, educators, advocates and industry members who believe that drinking water is healthier than drinking sugar-sweetened beverages and who work to enable all in the U.S. to drink water in place of sugary drinks.

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<sup>2</sup> EPA's proposed Lead and Copper Rule (revision pending) requires utilities to sample tap water for lead in all schools served by their system – but only every 5 years and at only 5 outlets per school

<sup>3</sup> Kenney EL, Gortmaker SL, Carter JE, Howe MC, Reiner JF, Craddock AL. Grab a Cup, Fill It Up! An Intervention to Promote the Convenience of Drinking Water and Increase Student Water Consumption During School Lunch. *Am J Public Health*. 2015 Sep;105(9):1777-83.

<sup>4</sup> Cost information for water bottle filling stations:

- Detroit Public Schools replaced all drinking fountains with hydration stations; individual station and installation costs were estimated at \$1600 per unit based on Detroit labor rates; abatement costs, premium labor rates and finishing supplies increased each unit to about \$3000 per station. Annual filter replacement costs also increased each unit by \$60 (p.c. Machion Jackson, Assistant Superintendent of Operations, Detroit Public Schools Community District; 4/13/19)
- California CDPH estimate: \$2,500 for equipment + \$2,500 for labor = \$5,000 total per installation (p.c. Jessie Gouck, California Department of Public Health; 4/15/21)

<sup>5</sup> EPA's proposed Lead and Copper Rule (revision pending) requires utilities to sample tap water for lead in those childcare facilities served by the water system – but only every 5 years, and at only 2 outlets per facility.

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- Harvard-University of California report, [State Approaches for Testing School Drinking Water for Lead in the United States](#)
- U.S. Government Accountability Office report, [Lead Testing of School Drinking Water Would Benefit From Improved Federal Guidance](#)
- Center for Green Schools white paper, ["Perspectives on State Legislation Concerning Lead Testing in School Drinking Water"](#)
- Environment America report, [Get the Lead Out: Ensuring Safe Drinking Water for our Children at School](#)

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