

# FactSheet April 2015

## **Drinking Water Access in Schools**

Access to free and safe tap water during school hours is vital to the health and learning of students. Children spend substantial time on school grounds, yet research shows that only one in four California schools are meeting the legal requirements for drinking water access as defined by state and federal policies.¹ Furthermore, many students are arriving at school already dehydrated due to the lack of proper water consumption at home.² It is critical that a reliable drinking supply is available and is promoted by school administration and staff as an important element of student health.

Adequate water consumption has been associated with a number of health benefits and stronger student achievement.<sup>3</sup> Slight dehydration can cause impaired cognitive performance, inattentiveness, short-term memory loss and diminished arithmetic abilities.<sup>4</sup> It is especially advantageous when substituted for sugar sweetened beverages (SSBs), such as soda and sports drinks, and can also minimize tooth decay and control weight gain.

Suggested water consumption for students <sup>5</sup>	
Age	Suggested Consumption
4 to 8	37-44 oz/day
9 to 13	44-57 oz/day
14 to 18	58-70 oz/day

There is some controversy regarding the amount of water children should drink because of the level of water contained in consumed foods. Proper water consumption also depends on variations in gender, climate and level of physical activity. The above chart can be used as a general guideline.

The importance of ensuring equitable access to free water becomes apparent when comparing the cost of bottled water with tap.<sup>6</sup> Families should not be

**Best Practice** 

Earlimart School District Board of Trustees revised its

wellness policy to illustrate a commitment to providing access to free, safe drinking water throughout the school day. The policy allows students to bring water into class, encourages staff to model drinking water behavior, requires regular testing and maintenance of water fountains and calls for the active promotion of drinking water throughout the district.<sup>10</sup>

required to purchase bottled water at their personal expense for economic reasons. Initial research illuminates the economic toll many are facing as they are forced to purchase increasing amounts of bottled water due to the ongoing drought or water contamination issues. Recently some families have had to spend as much as 10 percent of their income on bottled water. That exceeds the U.S. Environmental Protection Agency's affordability threshold of 1.5 percent.<sup>7</sup>

Policymakers began addressing the consumption of SSBs in school by enacting federal policy that restricts their sale. As a result, SSB consumption among children under the age of 12 decreased. However, consumption increased among adolescents (12-17), which already had the highest rates of SSB consumption.<sup>8</sup>

However, despite the push to limit access to SSBs, national data shows no significant increase in water consumption. Legislation was passed to further promote drinking water with California Senate Bill 1413 (Leno) in 2010 and the federal Healthy, Hunger-Free Kids Act of 2010. Both require public schools to provide free and safe drinking water to students where food is served. Districts may opt out of the state requirement, but those not complying with federal statute risk losing federal meal funding.

## Current state of water infrastructure in schools

Traditional drinking fountains are still the primary water delivery system in schools today. However, many perceive fountains as old, unclean, unhealthy, and poorly maintained, which can deter students from using them.<sup>11</sup> It is important that schools maintain clean, appealing and palatable water in order to promote use among students. This may require the replacement or retrofitting of existing fountains. Providing disposable cups and/or reusable bottles may further promote water intake because some students still may not drink directly from a fountain.

### **Water Quality**

Water contamination can easily affect student health and school-wide perceptions about drinking water safety long after the incident of contamination. California schools have long battled water contamination issues, and ongoing drought conditions are likely to make matters worse. It is important for districts to conduct regularly scheduled water testing and equipment and aquifer maintenance to ensure water is safe for consumption. It is also important for districts drawing water from private wells to develop appropriate protocols to address water contamination. Experts encourage those drawing from wells to work with local municipal water agencies to connect with their infrastructure as a long-term solution.



**You can find free promotional** drinking water flyers and posters by visiting the California Department of Public Health's *Rethink Your Drink* website.

## How to promote greater water consumption

Districts must actively promote free water consumption among students, faculty and parent populations alike. Faculty and staff must actively encourage proper hydration practices both in the classroom and physical activity settings. Marketing materials—such as posters, fliers, informational mailers, promotional activities, and staff meetings—are key resources for persuading individuals about the benefits of water. It is also important to display culturally relevant promotional materials because minority students are less likely to drink water from the tap than other students. This is due to having



It is important to develop and implement language in your district's wellness policy that ensures water maintenance, access and promotion

a higher rate of negative perceptions about the safety and cleaniless of the water source, and it may contribute to greater disparities in health outcomes.<sup>12</sup>

Schools may also promote free drinking water by hosting taste tests or including curriculum about the impact of water on human health. Free curriculum, promotional materials and other important information can be found in the 'Tap into Health' Water Promotion Toolkit listed in the resources section below. Districts may also opt to develop their own marketing materials.

## Developing excellent water access

Research conducted by Patel et al. (2014) identified five standards that must be met if a school wants to provide excellent drinking water access:

- Guarantee water in four of five key locations (cafeteria, classroom, gym, high traffic common areas, outdoor play areas — including outdoor sports fields for participants and observers alike in visible locations),
- 2. Ensure one or more fountains for every 25 students,
- 3. Offer water delivery options other than traditional fountains (such as bottle-filling stations, pitchers, etc.),
- 4. Provide water that is safe, clean, cold and palatable,
- Regularly maintain clean and functional water fountains.

#### **Board Actions**

- » Promote the resources below to help district personnel plan and conduct drinking water related activities.
- » Direct staff to:
  - » Gather current district guidelines/protocols regarding fountain maintenance and water testing schedules.

- » Conduct drinking water filling station inventories at each school. Note the quality, number and age of drinking fixtures at each site.
- » Monitor drinking water access and habits during mealtimes and throughout other areas at each school.
- » Inventory the fountain-to-student ratios at each school.
- » Review available free promotional materials and curriculum for possible adoption.
- » Insure regular water fixture cleaning and quality auditing protocols are in place.
- » Review and revise your district's wellness policy to ensure it incorporates language and protocols about drinking water access, promotion and auditing for water quality/cleanliness.

### Questions to Ask

- » How might your district's wellness policy better promote drinking water quality, access and promotion?
- » What are your district's water quality testing protocols?
- » What is the water fountain-to-student ratio at each school site? What should be the district's standard?
- » How appealing are the drinking water delivery systems within your district?
- » Is the district currently utilizing any marketing materials to help promote drinking water?
- » Who are possible stakeholders within the district?

#### Resources

- » Operation: Hydration
- » Water Works Guide
- » 'Tap into Health' Water Promotion Toolkit
- » California Food Policy Advocates' Water in Schools

#### References

Patel, A. I., Hecht, K., Hampton, K.E., Grumbach, J.M., Braff-Guajardo, E., & Brindis, C. D. (2014). Tapping Into Water: Key Considerations for Achieving Excellence in School Drinking Water Access. *American Journal of Public Health*, 104 (7), 1314-9. doi:10.2105/AJPH.2013.301797

- Stookey, J. D., Brass, B., Holliday, A., Arieff A. (2012). What is the Cell Hydration Status of Healthy Children in the USA? Preliminary Data on Urine Osmolality and Water Intake. *Public Health Nutrition*, 15 (11), 2148-56. doi: 10.1017/S1368980011003648.
- 3 Popkin, B. M., D'Anci K. E., Rosenberg, I. H. (2010). Water, Hydration, and Health. *Nutrition Reviews*, 68 (8), 439-58. doi: 10.1111/j.1753-4887.2010.00304.x.
- 4 California School Boards Association. (2012). Student Wellness: A Healthy Food and Physical Activity Policy Resource Guide. West Sacramento, CA.
- 5 Natural Hydration Council. (2013). *Hydration for Children*. London, England: Derbyshire, E.
- 6 Olsen, Erik D. Natural Resources Defense Council. Bottled Water-Pure Drink or Pure Hype. 1999. http://www.nrdc.org/water/drinking/bw/chap2.asp
- 7 McDonald, A. (2014, June 15). Dried Up: Poverty in America's Drought Lands. *The Deseret News National*. Retrieved from http://bit.ly/1BEUguYl
- University of California, Los Angeles Center for Health Policy Research. (2013). Still Bubbling Over: California Adolescents Drinking More Soda and Other Sugar-Sweetened Beverages. Los Angeles, CA: Babey, S.H., Wolstein, J., Goldstein, H.
- 9 Colabianchi N., Turner L., Hood N. E., Chaloupka F. J., Johnston L.D. (2014). Availability of Drinking Water in US Public School Cafeterias. Chicago, IL: Bridging the Gap. Retrieved from http://bit.ly/1bK0LaA, & "Most Schools Meeting Water Mandate, but There's Work Left To Do"
- 10 Case Studies. Water in Schools website.http://bit.ly/1DIAtYw. Accessed 3/19/2015
- Patel, A.I., Bogart L.M., Uyeda K.E., Rabin A., & Schuster M.A.. (2010). Perceptions About Availability and Adequacy of Drinking Water in a Large California School District. Preventing Chronic Disease: Public Health Research, Practice, and Policy, 7(2), 1-10. www.cdc.gov/pcd/issues/2010/mar/09\_0005.htm
- Patel AI, Shapiro DJ, Wang YC, Cabana MD. Sociodemographic characteristics and beverage intake of children who drink tap water. Am J Prev Med 2013;45(1):75–82.