

# Striving for Meaningful Policies to Reduce Sugar-Sweetened Beverage Intake Among Young Children

A strong evidence base links sugar-sweetened beverage (SSB) intake to obesity in older children and adults.<sup>1–8</sup> In this issue of *Pediatrics*, DeBoer et al add to the evidence using data from a nationally representative US cohort study to show a relationship between SSB intake and obesity among preschool-age children.<sup>9</sup> The authors conclude that “strong consideration should be made toward policy changes leading to decreases in SSB consumption among children.”<sup>9</sup> The questions we are now hoping to answer are the following: what policy solutions can curb SSB consumption among our youngest children? Equally important, how can these policies be meaningfully implemented in real-world settings?

DeBoer et al’s study draws attention to a population of preschool-aged children who are often neglected by current SSB policies. Instituting soda taxes and limiting SSB serving sizes in restaurants have been proposed and attempted.<sup>10</sup> Healthy beverage policies have been instituted in workplaces,<sup>11,12</sup> and >80% of US school districts have policies prohibiting or restricting student access to SSBs.<sup>13</sup> However, policies targeting preschool-aged children remain largely absent.

There are clear federal policymaking opportunities to reduce SSB consumption among young children. The Child and Adult Food Care Program (CACFP), a US Department of Agriculture administered program that provides meals and snacks to low-income children in child care, provides reimbursement for some beverages served (ie, milk and 100% juice) to ~3.3 million children in CACFP facilities.<sup>14</sup> The 2010 Healthy Hunger-Free Kids Act made positive gains by requiring CACFP facilities to make potable water available throughout the day and limiting milk served to preschoolers to low-fat or skim.<sup>15</sup> However, the act did not set limits on SSBs in participating facilities. New CACFP regulations will be released this fall, and pediatricians will have an unprecedented opportunity to influence what beverages are allowed in CACFP facilities.

Although federal policies are important, their reach is limited. Because CACFP facilities account for only a portion of US child care, local regulations are also needed. However, to date, fewer than a dozen states have legislation restricting SSBs in child care.<sup>16,17</sup> Even without governmental regulation, child care facilities can set their own institutional beverage standards through the development of facility-level policies and policy communication in parent handbooks and trainings.

As we all know, policy implementation is where the rubber meets the road. Indeed, there are often gaps between on-the-book regulations and real-world practices. To narrow such gaps, it is critical to ensure implementation of regulations through training and monitoring of child

**AUTHORS:** Anisha I. Patel, MD, MSHS,<sup>a,b</sup> and Lorrene Ritchie, PhD, RD<sup>c</sup>

<sup>a</sup>Department of Pediatrics, and <sup>b</sup>Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco, California; and <sup>c</sup>Atkins Center for Weight and Health, University of California, Berkeley, California

## KEY WORDS

preschoolers, nutrition, obesity, policy, beverages

## ABBREVIATIONS

CACFP—Child and Adult Care Food Program

SSB—sugar-sweetened beverage

Dr Patel conceptualized the commentary and prepared the first draft; Dr Ritchie helped conceptualize the commentary and reviewed and revised the manuscript; and both authors approved the final manuscript as submitted.

Opinions expressed in these commentaries are those of the author and not necessarily those of the American Academy of Pediatrics or its Committees.

[www.pediatrics.org/cgi/doi/10.1542/peds.2013-1799](http://www.pediatrics.org/cgi/doi/10.1542/peds.2013-1799)

doi:10.1542/peds.2013-1799

Accepted for publication Jun 13, 2013

Address correspondence to Anisha I. Patel, MD, MSPH, MSHS, Department of Pediatrics, and Philip R. Lee Institute for Health Policy Studies, University of California at San Francisco, 3333 California St, Suite 245, Mailbox 0503, San Francisco, CA 94118. E-mail: [patela@peds.ucsf.edu](mailto:patela@peds.ucsf.edu)

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2013 by the American Academy of Pediatrics

**FINANCIAL DISCLOSURE:** The authors have no financial relationships relevant to this article to disclose.

**FUNDING:** This publication was partially supported by Grant Number K23 HD067305 from the National Institute for Child Health and Human Development, NIH. The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of the NIH.

**POTENTIAL CONFLICT OF INTEREST:** The authors have indicated they have no potential conflicts of interest to disclose.

**COMPANION PAPER:** A companion to this article can be found on page 413, and online at [www.pediatrics.org/cgi/doi/10.1542/peds.2013-0570](http://www.pediatrics.org/cgi/doi/10.1542/peds.2013-0570).



care providers.<sup>18</sup> At the same time, it is also important to implement regulations with the “spirit of the law” as well as the “letter of the law” in mind. Although California has one of the most comprehensive regulations on beverages in child care (ie, no SSBs, no more than 1 daily serving of 100% juice, water availability throughout the day including at meals and snacks, and 1% or skim milk without added sweeteners for children aged  $\geq 2$ ),<sup>19</sup> we have found wide variation in regulation implementation. For example, although some facilities satisfy the requirement to have water available by having a sink in the classroom from which children must request a drink when thirsty, others provide water in easily accessible small pitchers with cups at meals and ensure that individual-sized reusable water bottles are available at children’s reach both indoors and outdoors.

DeBoer et al’s article emphasizes the hazards of the vacuum in SSB policy solutions targeting young children. In addition to a sharper policy focus, complementary strategies should be

adopted to ensure effective policy implementation in the preschool years:

- Widen the SSB policy scope from child care to other community settings. Establish healthy vending standards for parks,<sup>20</sup> develop regulations that provide incentives to mobile vendors that serve healthy beverages,<sup>21</sup> and make milk or water the default for restaurant kids’ meals.<sup>12,22</sup>
- Establish and disseminate best practices for beverages in child care. Compile and disseminate success stories and provide technical assistance to generate more widespread implementation of best practices.<sup>23</sup>
- Provide training on beverages to child care providers and children.<sup>24</sup> Research suggests that environmental changes coupled with education is necessary for sustained behavior change.<sup>25</sup>
- Include actionable limits on SSBs in the Dietary Guidelines for Americans and promote water as the

first beverage of choice for thirst. Include water on My Plate materials. Provide concrete messages (ie, limit your child’s sugar drinks to no more than once a week) to help families operationalize recommendations.

- Develop culturally relevant educational materials and campaigns to reinforce messages provided by clinicians and health educators.<sup>24</sup>
- Adopt industry marketing strategies for health promotion. Include the use of recognizable characters to promote intake of water.<sup>26</sup> Prohibit marketing of SSBs in all media forms to children.

To date most SSB policy discussion has neglected the youngest children. Isn’t it time to effect meaningful policies and implementation strategies to curb SSB consumption in our youngest children?

## ACKNOWLEDGMENTS

We thank Dr Laura Schmidt and Sheila Stern for their assistance in editing this manuscript.

## REFERENCES

1. Stookey JD, Constant F, Popkin BM, Gardner CD. Drinking water is associated with weight loss in overweight dieting women independent of diet and activity. *Obesity (Silver Spring)*. 2008;16(11):2481–2488
2. Dennis EA, Dengo AL, Comber DL, et al. Water consumption increases weight loss during a hypocaloric diet intervention in middle-aged and older adults. *Obesity (Silver Spring)*. 2010;18(2):300–307
3. Ebbeling CB, Feldman HA, Osganian SK, Chomitz VR, Ellenbogen SJ, Ludwig DS. Effects of decreasing sugar-sweetened beverage consumption on body weight in adolescents: a randomized, controlled pilot study. *Pediatrics*. 2006;117(3):673–680
4. Stookey JD, Constant F, Gardner CD, Popkin BM. Replacing sweetened caloric beverages with drinking water is associated with lower energy intake. *Obesity (Silver Spring)*. 2007;15(12):3013–3022
5. Grimes CA, Riddell LJ, Campbell KJ, Nowson CA. Dietary salt intake, sugar-sweetened beverage consumption, and obesity risk. *Pediatrics*. 2013;131(1):14–21
6. de Ruyter JC, Olthof MR, Seidell JC, Katan MB. A trial of sugar-free or sugar-sweetened beverages and body weight in children. *N Engl J Med*. 2012;367(15):1397–1406
7. Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. *Am J Clin Nutr*. 2006;84(2):274–288
8. Ebbeling CB, Feldman HA, Chomitz VR, et al. A randomized trial of sugar-sweetened beverages and adolescent body weight. *N Engl J Med*. 2012;367(15):1407–1416
9. DeBoer MD, Scharf RJ, Demmer RT. Sugar-sweetened beverages and weight gain in 2- to 5-year-old children. *Pediatrics*. 2013;132(3):413–420
10. Institute of Medicine. *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation*. Washington, DC: National Academies Press; 2012
11. Centers for Disease Control and Prevention. Workplace health promotion. Available at: [www.cdc.gov/workplacehealthpromotion/businesscase/index.html](http://www.cdc.gov/workplacehealthpromotion/businesscase/index.html). Accessed June 5, 2013
12. Arena R, Guazzi M, Briggs PD, et al. Promoting health and wellness in the workplace: a unique opportunity to establish primary and extended secondary cardiovascular risk reduction programs. *Mayo Clin Proc*. 2013;88(6):605–617
13. Fox MK, Condon E. 2012. School Nutrition Dietary Assessment Study—IV. Summary of findings. Available at: [www.mathematica-mpr.com/publications/PDFs/nutrition/snda-iv\\_findings.pdf](http://www.mathematica-mpr.com/publications/PDFs/nutrition/snda-iv_findings.pdf). Accessed June 6, 2013
14. US Department of Agriculture. Child and Adult Care Food Program. Service. Available

- at: [www.fns.usda.gov/cnd/Care/CACFP/about-cacfp.htm](http://www.fns.usda.gov/cnd/Care/CACFP/about-cacfp.htm). Accessed June 6, 2013
15. Healthy, Hunger-Free Kids Act of 2010, 42 USC 1751, §203 (2010)
  16. Centers for Disease Control and Prevention. Children's Food Environment State Indicator Report 2011. Available at: [www.cdc.gov/obesity/downloads/childrensfoodenvironment.pdf](http://www.cdc.gov/obesity/downloads/childrensfoodenvironment.pdf). Accessed June 6, 2013
  17. Benjamin SE, Craddock A, Walker EM, Slining M, Gillman MW. Obesity prevention in child care: a review of U.S. state regulations. *BMC Public Health*. 2008;8:188
  18. Ritchie L, Sharma S, Braff-Guajardo E, Yoshida S. Policy Brief: Implications of California's Healthy Beverages in Child Care Law. March 2013. Available at: [http://cwh.berkeley.edu/sites/default/files/primary\\_pdfs/CA\\_Healthy\\_Beverages\\_in\\_Child\\_Care\\_policy\\_brief\\_3.13.pdf](http://cwh.berkeley.edu/sites/default/files/primary_pdfs/CA_Healthy_Beverages_in_Child_Care_policy_brief_3.13.pdf). Accessed June 21, 2013
  19. Child Care Facilities. Nutrition. Available at: [www.leginfo.ca.gov/pub/09-10/bill/asm/ab\\_2051-2100/ab\\_2084\\_bill\\_20100930\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_2051-2100/ab_2084_bill_20100930_chaptered.pdf). Accessed June 6, 2013
  20. Chicago ParkDistrict. Chicago Park District adopts healthy vending policy: machines unveiled as part of citywide rollout. Available at: [www.chicagoparkdistrict.com/chicago-park-district-adopts-healthy-vending-policy-machines-unveiled-as-part-of-citywide-rollout/](http://www.chicagoparkdistrict.com/chicago-park-district-adopts-healthy-vending-policy-machines-unveiled-as-part-of-citywide-rollout/). Accessed June 6, 2013
  21. Tester JM, Stevens SA, Yen IH, Laraia BL. An analysis of public health policy and legal issues relevant to mobile food vending. *Am J Public Health*. 2010;100(11):2038–2046
  22. Wootan MG. Children's meals in restaurants: families need more help to make healthy choices. *Child Obes*. 2012;8(1):31–33
  23. Healthy Beverages in Child Care. Available at: <http://healthybeveragesinchildcare.org>. Accessed June 6, 2013
  24. Potter Loves Water. Available at: [www.potterloveswater.com/](http://www.potterloveswater.com/). Accessed June 6, 2013
  25. Ritchie LD, Hoelscher M, Sothorn M, Crawford PB; American Dietetic Association. Position of the American Dietetic Association: individual-, family-, school-, and community-based interventions for pediatric overweight. *J Am Diet Assoc*. 2006;106(6):925–945
  26. Kotler JA, Schiffman JM, Hanson KG. The influence of media characters on children's food choices. *J Health Commun*. 2012;17(8):886–898

**LAW SCHOOL WOES:** *A few years ago I had written about the burgeoning size of law school classes. Enrollment had skyrocketed, peaking at more than 52,000 in 2010, and schools were often making a tidy profit. It appears, however, that the tide has dramatically turned. As reported in The Wall Street Journal (Law: July 15, 2013), the number of applicants and matriculants at law schools across the country has plunged. Nationally, the number of law school applicants has dropped from almost 100,000 in 2003 to 58,000 in 2013. Some schools have seen the number of matriculants drop by almost 50%. With fewer students paying tuition, law schools have only a few options to balance the budget: raise tuition fees, lower admissions standards, or cut administrative costs. Raising tuition would limit the number of applicants even further and lowering the admission standards could have a grave impact on the prestige of the school and indirectly lead to a drop in the number of applicants. Schools have had to turn to cost cutting. Administrative positions have been eliminated and in a rare step, faculty have been let go, offered early retirement, or asked to accept pay cuts. Each faculty position eliminated saves between \$70,000 and \$180,000 at most of the schools affected. Most schools expect to weather the storm, though graduates still need to be forewarned that jobs may be hard to find. A Vermont employment Web page succinctly states that employment prospects for graduating lawyers is still “not good.”*

*Noted by WVR, MD*

**Striving for Meaningful Policies to Reduce Sugar-Sweetened Beverage Intake  
Among Young Children**

Anisha I. Patel and Lorrene Ritchie

*Pediatrics* 2013;132;566

DOI: 10.1542/peds.2013-1799 originally published online August 5, 2013;

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://pediatrics.aappublications.org/content/132/3/566">http://pediatrics.aappublications.org/content/132/3/566</a>
<b>References</b>	This article cites 15 articles, 4 of which you can access for free at: <a href="http://pediatrics.aappublications.org/content/132/3/566#BIBL">http://pediatrics.aappublications.org/content/132/3/566#BIBL</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>Nutrition</b> <a href="http://www.aappublications.org/cgi/collection/nutrition_sub">http://www.aappublications.org/cgi/collection/nutrition_sub</a> <b>Advocacy</b> <a href="http://www.aappublications.org/cgi/collection/advocacy_sub">http://www.aappublications.org/cgi/collection/advocacy_sub</a> <b>Federal Policy</b> <a href="http://www.aappublications.org/cgi/collection/federal_policy_sub">http://www.aappublications.org/cgi/collection/federal_policy_sub</a>
<b>Permissions &amp; Licensing</b>	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.aappublications.org/site/misc/Permissions.xhtml">http://www.aappublications.org/site/misc/Permissions.xhtml</a>
<b>Reprints</b>	Information about ordering reprints can be found online: <a href="http://www.aappublications.org/site/misc/reprints.xhtml">http://www.aappublications.org/site/misc/reprints.xhtml</a>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



# PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

## **Striving for Meaningful Policies to Reduce Sugar-Sweetened Beverage Intake Among Young Children**

Anisha I. Patel and Lorrene Ritchie

*Pediatrics* 2013;132;566

DOI: 10.1542/peds.2013-1799 originally published online August 5, 2013;

The online version of this article, along with updated information and services, is  
located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/132/3/566>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2013 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

