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Nutrition & Obesity Network

POLICY RESEARCH EVALUATION

Increasing Access to Drinking Water in Schools: Strategies for Success

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Speakers

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Purpose of Today's Webinar

- ✓ **Outline the benefits of providing students with access to drinking water during the school day**
- ✓ **Share successful strategies for increasing water access in schools**
- ✓ **Describe tools and resources to help schools increase access to drinking water**

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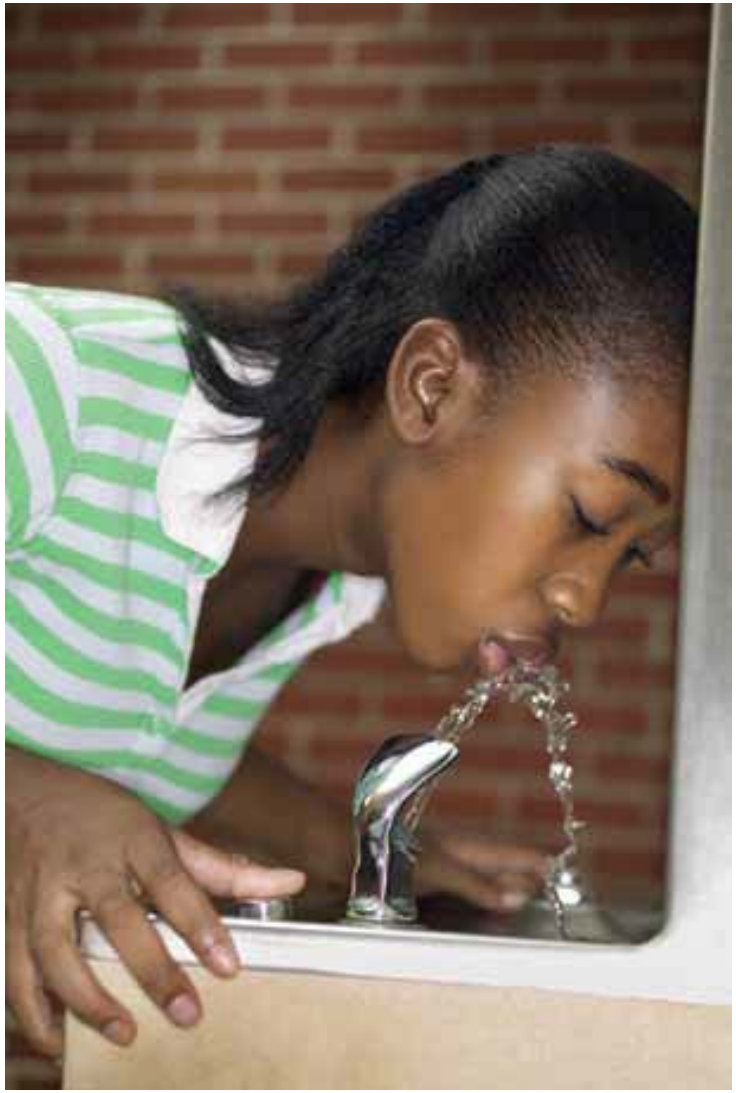
Water and Health

- ✓ **Healthy alternative to sugar sweetened beverages**
- ✓ **Help children maintain healthy weight status**
- ✓ **Hydration may improve cognitive function**
- ✓ **Helps prevent dental cavities**



Child Care Hlth Dev 2007;33:409–15. *Pediatrics* 2009;123:e661–e667. *Arch Pediatr Adolesc Med.* 2009; 163(4):336–343. *Nutr Rev* 2010;68(8):439–458. *Hum Brain Mapp* 2011;32:71–79. *Appetite* 2009;53:469–472. *Appetite* 2009;52:776–779. *Appetite* 2009;53:143–146.

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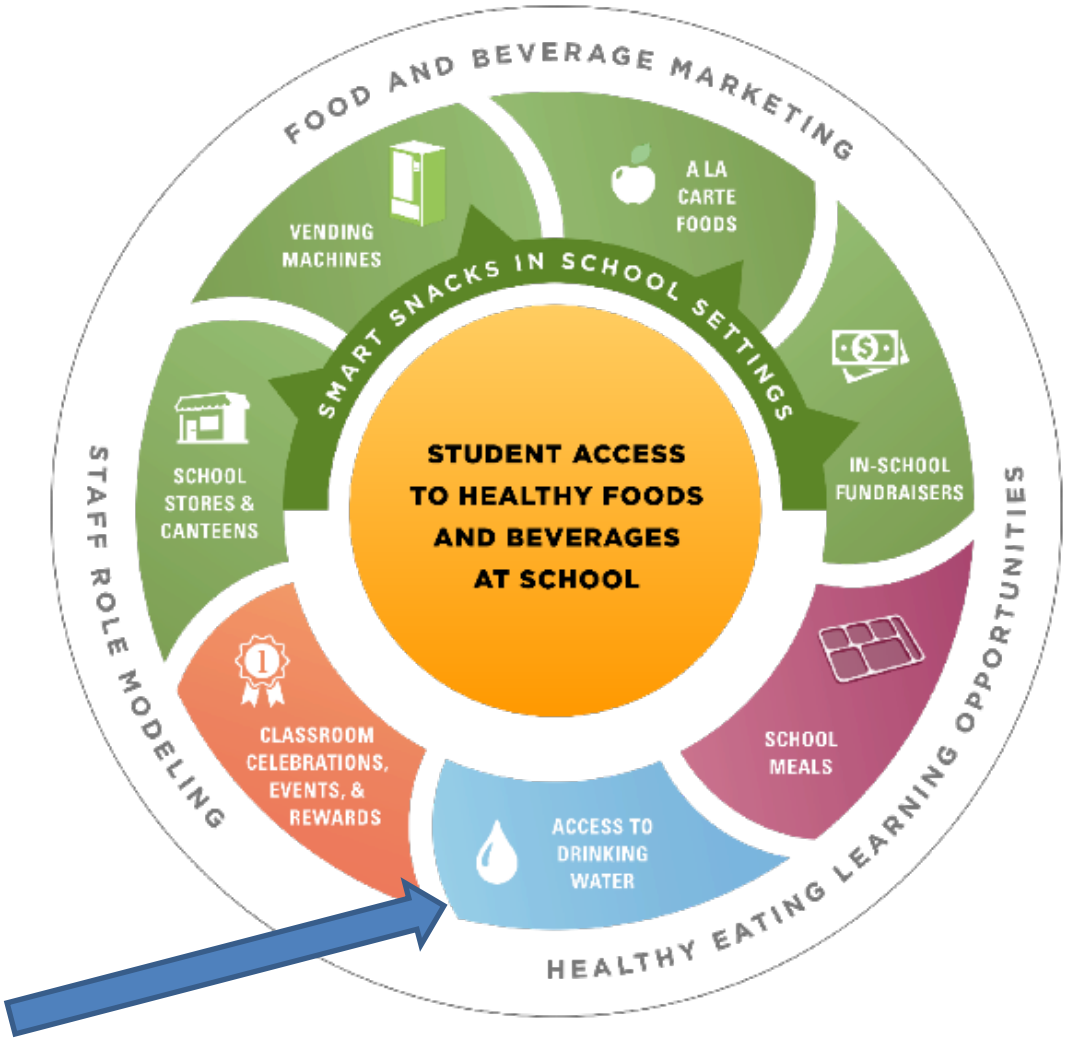
Water Access is Part of a Healthy School Nutrition Environment



www.cdc.gov/healthyschools/parentengagement/pdf/healthy-students_badge_7.pdf

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How does water access fit in with 1305 performance measures?

Performance Measures

- **Number of local education agencies that received professional development and technical assistance on strategies to create a healthy school nutrition environment. (B.1.01, 2.3.01)**
- **Percent of schools that allow students to have access to drinking water. (2.3.10)**

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Healthy, Hunger-Free Kids Act Requirements

Schools that participate in the USDA school meal programs are required to provide students with

- ✓ **potable drinking water**
- ✓ **free of charge**
- ✓ **during meal times**
  - ✓ where lunch meals are served
  - ✓ when breakfast is served in the cafeteria

7 CFR § 210.10(a)(1) and CFR § 220.8(a)(1)
http://www.gpo.gov/fdsys/pkg/FR-2013-06-28/pdf/2013-15249.pdf

Drinking Water Practices in US Schools

- **88.3% of schools offer a free source of drinking water in the cafeteria during meal times**

CDC. School Health Policies and Practices Study, 2014
www.cdc.gov/healthyyouth/data/shpps/

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What does this look like in schools?

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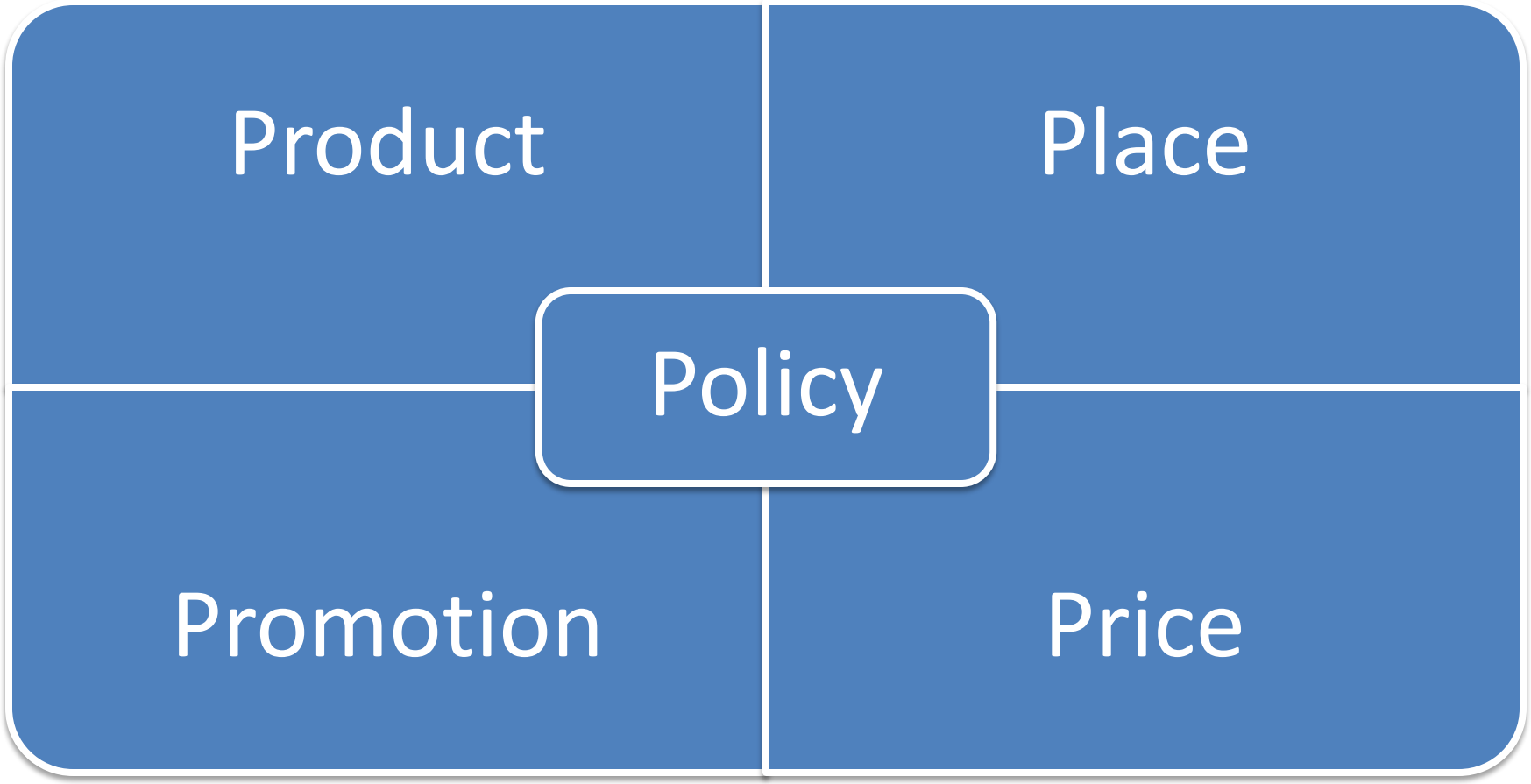
How can schools begin to address water access?



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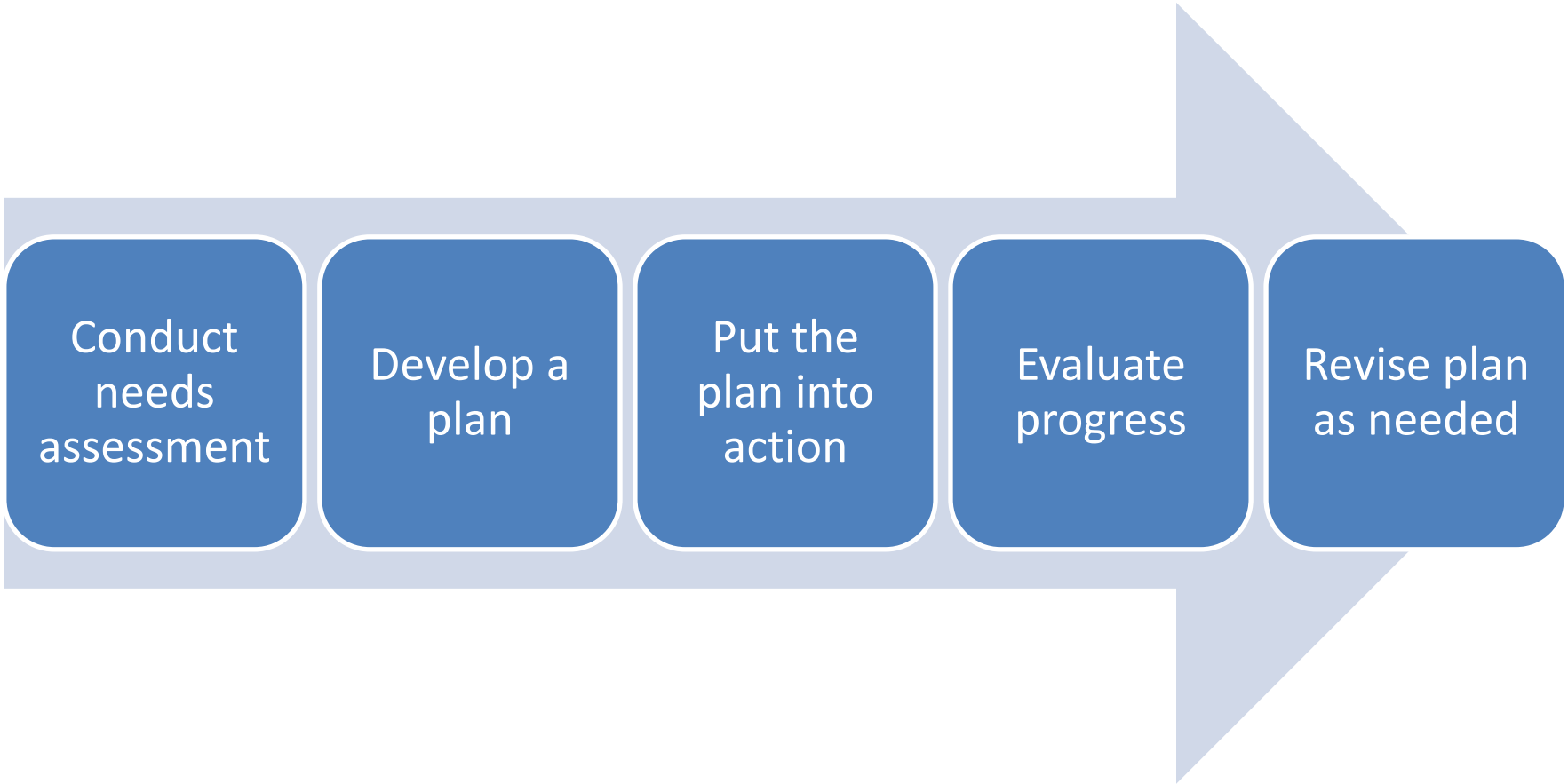
Process for increasing access to drinking water in schools



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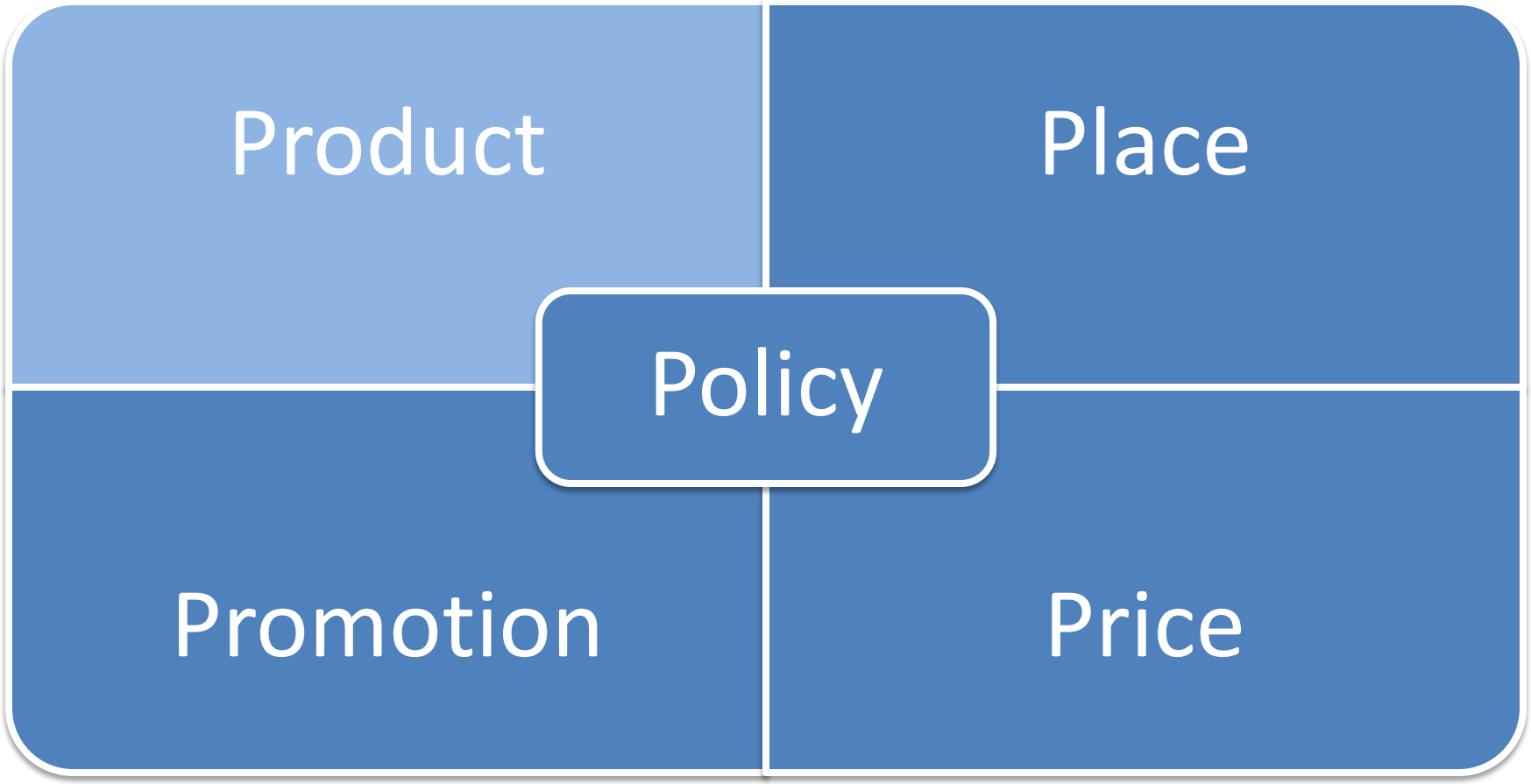
5 P's of Water Access



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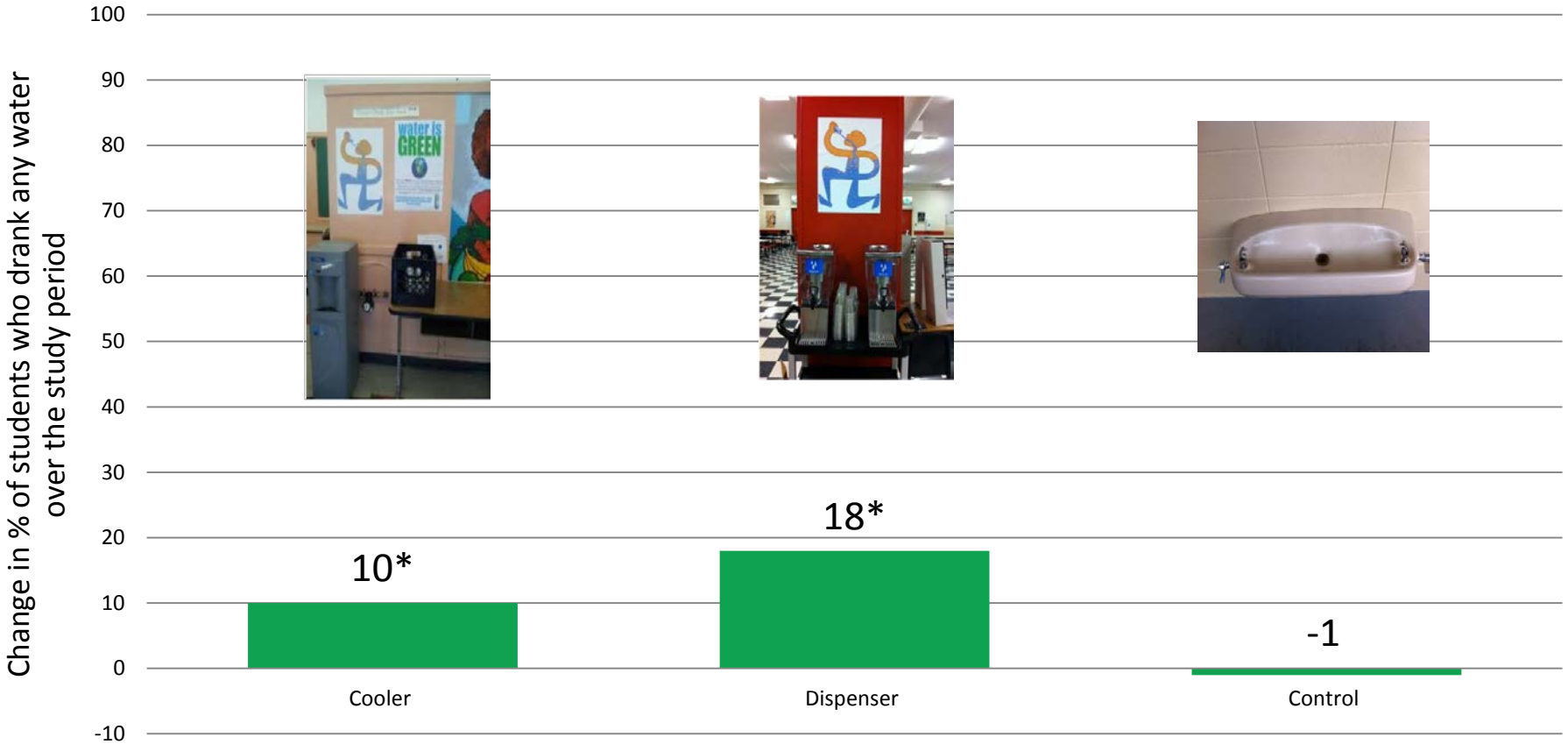
The Impact of a Water Intervention on Middle School Students' Water Intake at Lunch



*P-value <0.05

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Providing Water Jets in Schools May Prevent Obesity

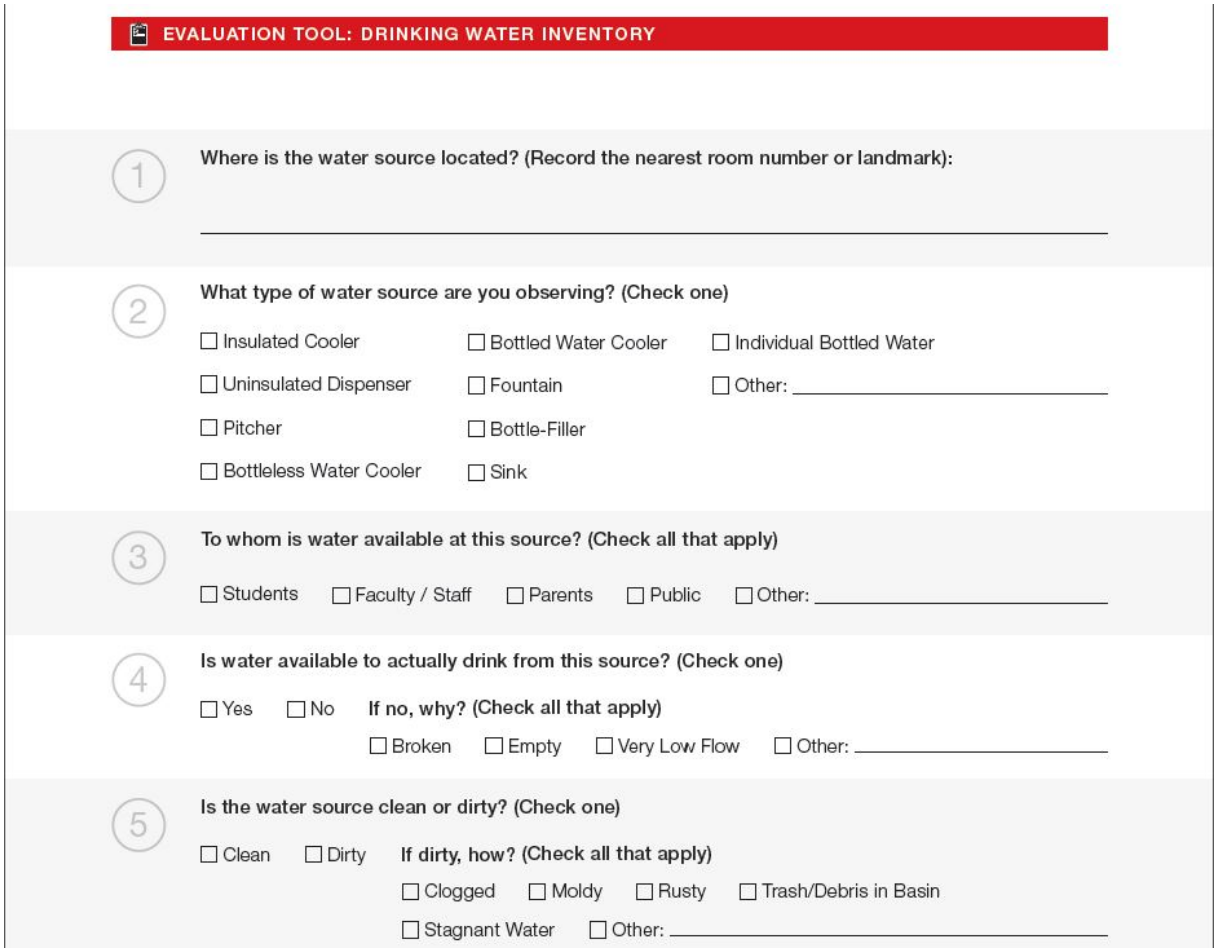
- New York City schools
- Water jets and plastic cups in cafeterias
- Reduction in BMI z-scores and percent of overweight students in schools with jets

Schwartz et al, JAMA Peds, 2016.

Product Considerations

- Quality of the drinking water source
  - Type of source
  - Cleanliness
  - Flow
- Quality of the drinking water
  - Temperature
  - Taste
  - Clarity

Water Source Assessment Tool



EVALUATION TOOL: DRINKING WATER INVENTORY

1. **Where is the water source located? (Record the nearest room number or landmark):**

   _____

2. **What type of water source are you observing? (Check one)**

   ☐ Insulated Cooler ☐ Bottled Water Cooler ☐ Individual Bottled Water
   ☐ Uninsulated Dispenser ☐ Fountain ☐ Other: _____
   ☐ Pitcher ☐ Bottle-Filler
   ☐ Bottleless Water Cooler ☐ Sink

3. **To whom is water available at this source? (Check all that apply)**

   ☐ Students ☐ Faculty / Staff ☐ Parents ☐ Public ☐ Other: _____

4. **Is water available to actually drink from this source? (Check one)**

   ☐ Yes ☐ No **If no, why? (Check all that apply)**
   ☐ Broken ☐ Empty ☐ Very Low Flow ☐ Other: _____

5. **Is the water source clean or dirty? (Check one)**

   ☐ Clean ☐ Dirty **If dirty, how? (Check all that apply)**
   ☐ Clogged ☐ Moldy ☐ Rusty ☐ Trash/Debris in Basin
   ☐ Stagnant Water ☐ Other: _____

Parents Making Waves Toolkit. Available at:
http://cfpa.net/Water/WaterToolkits/MakingWavesEnglish%20/MakingWaves-EvaluationTool2-English.pdf

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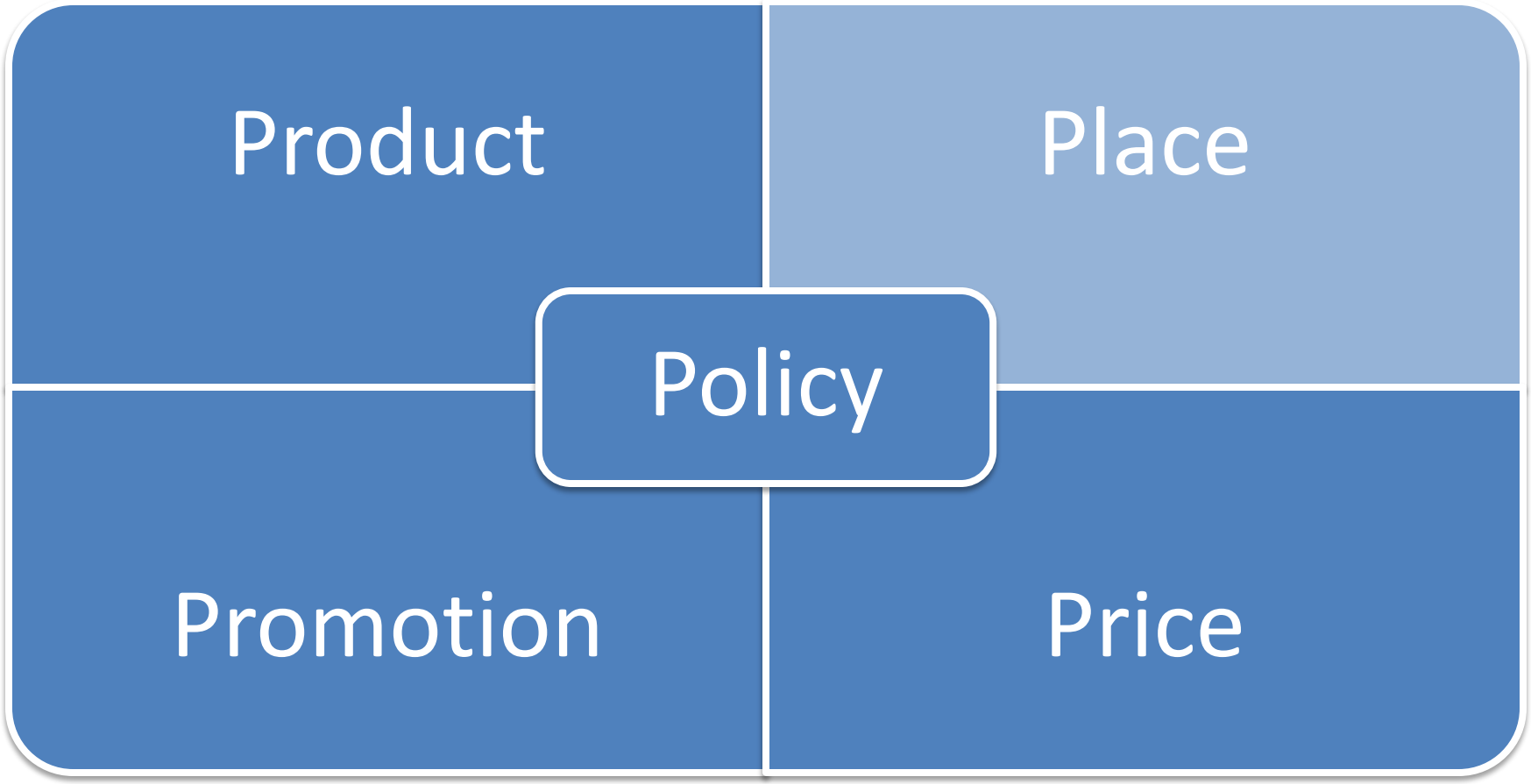
5 P's of Water Access



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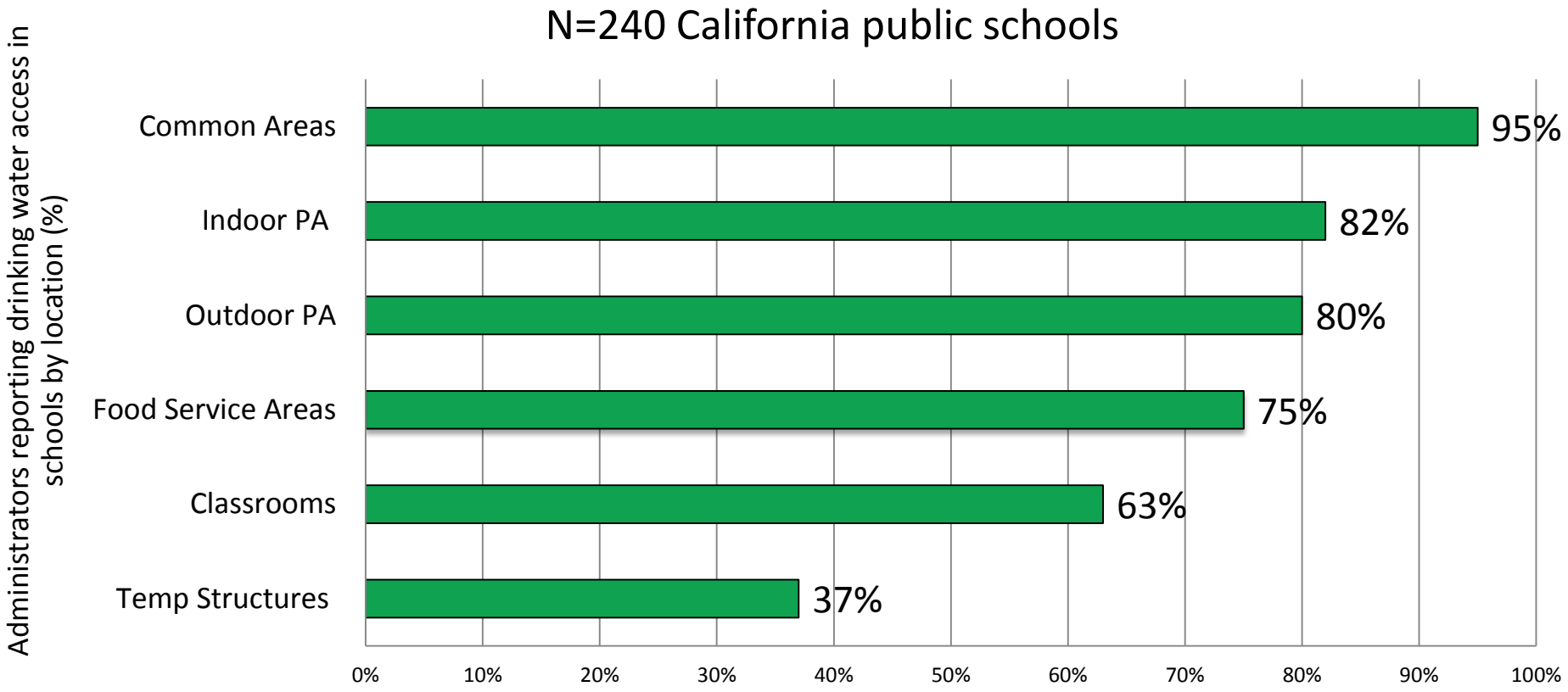
Free Drinking Water Access in Schools



Patel et al, AJPH, 2015.

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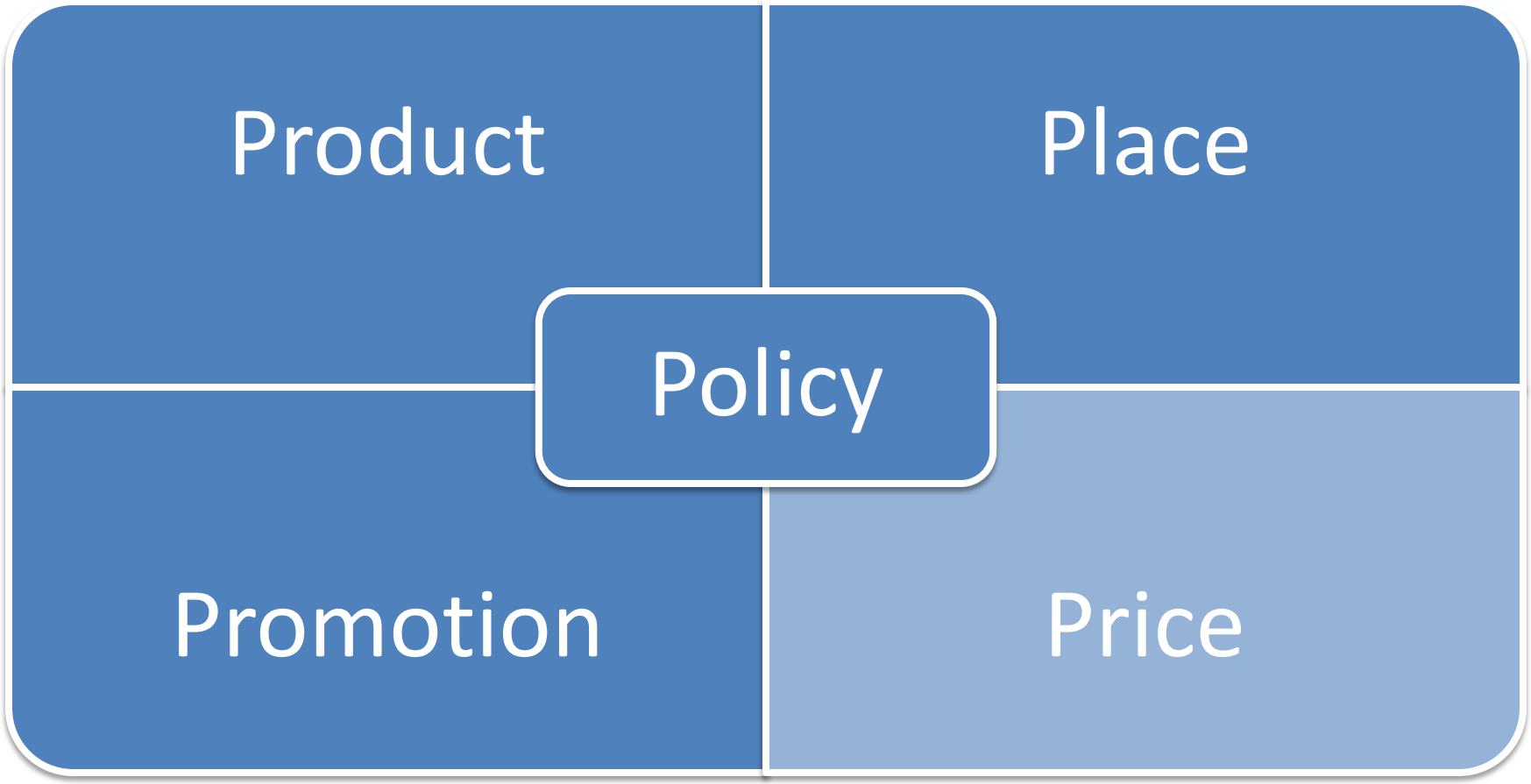
Placement Considerations

- High-traffic areas
  - Classrooms
  - Physical activity spaces
  - Cafeterias
- Near existing water lines and electricity
- Easily accessible
  - Doesn’t create lines or flow problems
  - At a short height for small children

5 P's of Water Access



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Simple Intervention Cost

- Simple intervention – cups & promotional signage
- Cost of cups, dispensers, signs
  - $0.64/day/school
  - ~ $0.01/day/student

Kenney et al, AJPH, 2015

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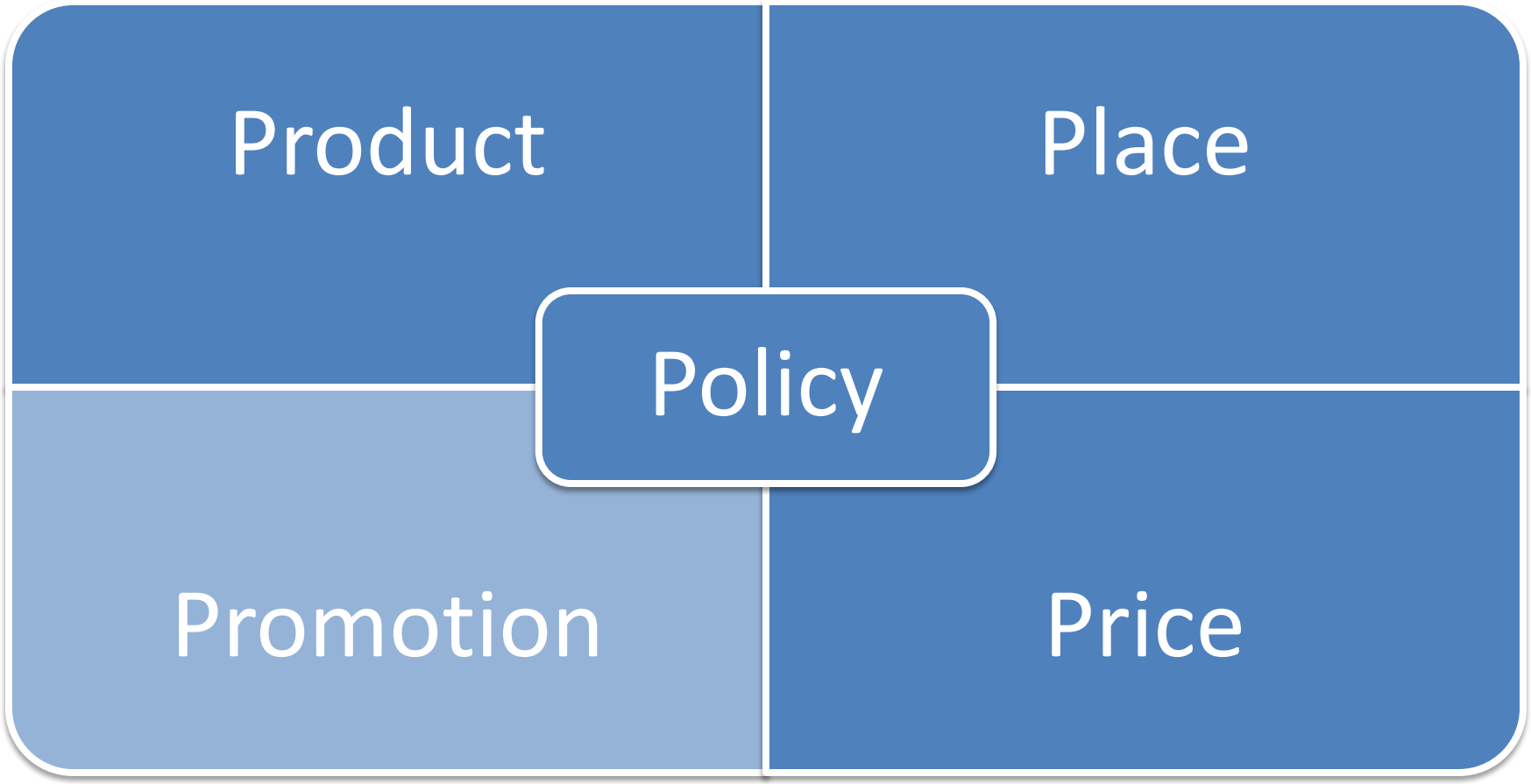
OVERVIEW OF DRINKING WATER DELIVERY OPTIONS

	Tap Water Dispensers	Point of Use Water Machines	Fountains, Founains with Bottle-Fillers, & Stand Alone Bottle-Fillers
Water Delivery Option	Refillable containers with a spout for students to self-serve tap water 	Bottleless water coolers that hook into a tap water line. Students press a button to dispense water 	Traditional drinking water fountains with or without stations for filling water bottles, or stand-alone bottle-fillers 
Approximate Price Range	$15 to $150	$250 to $700 to purchase; starting at $25/month to rent	$600 to $4000 for new unit; $500-$1000 to add bottle filler to existing fountain
Advantages	• Low cost • Water can be chilled by adding ice or putting container in fridge overnight before serving • Can be filled up from a water source in a central location in the school and transported to area of use • No electricity needed to use units • No additional plumbing needed • Many schools already have such dispensers on hand (e.g., for sports teams or staff meetings)	• Some units can chill water • Volume discounts may be available • Some units can be rented • Some units are compatible with filtration systems • Hook directly into tap water line so do not need to be filled like tap water dispensers • Minimal maintenance and cleaning required	• Long-lasting • Some units are refrigerated (offer chilled water) • Some units are compatible with filtration systems • Hook directly into tap water line so do not need to be filled like tap water dispensers • Some units operate with gravity and don't require electricity • Minimal maintenance and cleaning required
Considerations	• Larger dispensers are heavy when full (a utility cart is useful for transport) • More labor-intensive than other options because staff need to fill the dispenser with water daily (or more often) and clean it weekly • Students must have a cup or reusable bottle to get water from the dispenser	• Upfront costs are more expensive than tap water dispensers • May require professional installation, sometimes at additional cost • Require electricity, which incurs (sometimes significant) additional cost • Some units do not drain excess water automatically and staff must manually empty drip tray • Students must have a cup or reusable bottle to get water from machine	• Upfront costs are more expensive than tap water dispensers and point of use water machines • Requires professional installation • Stand alone bottle fillers may not be accessible to students unless cups or reusable water bottles are also provided; units that include traditional fountains increase accessibility to students without a cup or bottle

http://waterinschools.org/pdfs/WaterWorksGuide2014.pdf.

5 P's of Water Access



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Promotion Opportunities and Resources

Promotion works!

When water was promoted and cups were provided during school lunch:

- More students drank water
- Students drank more water
- Fewer students were observed having sugary drinks

Kenney et al, AJPH, 2015

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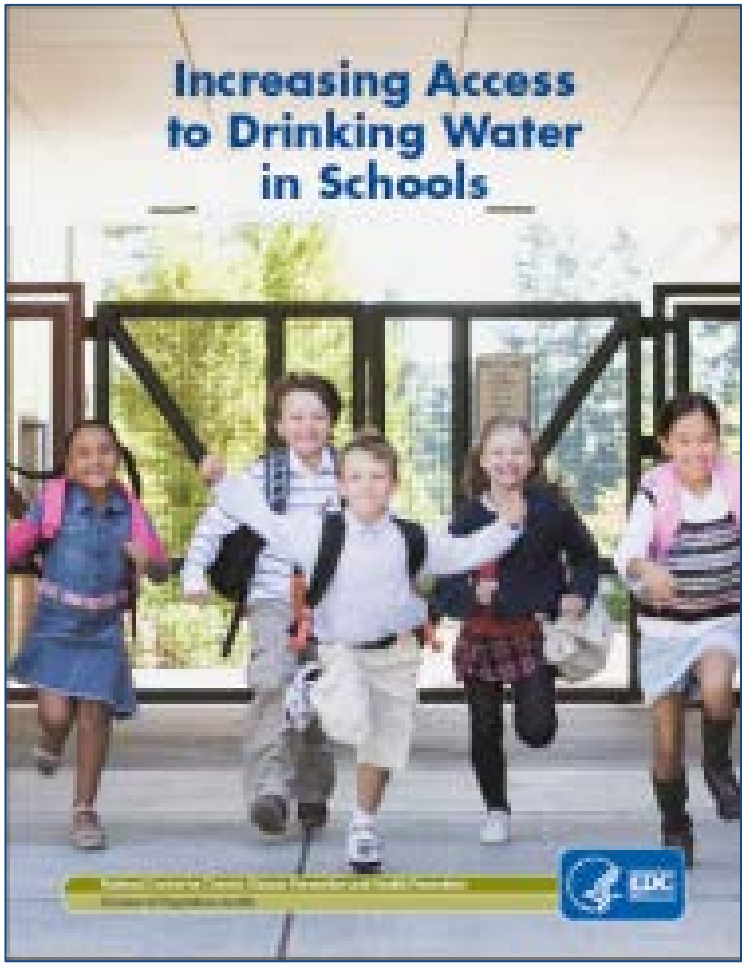
Increasing Access to Drinking Water in Schools Tool Kit



Who should use the tool kit?

- School health councils
- Nutrition services providers
- Principals
- Teachers
- Parents
- Public health partners
- Community members
- University staff

http://www.cdc.gov/healthyschools/npao/pdf/Water_Access_in_Schools.pdf

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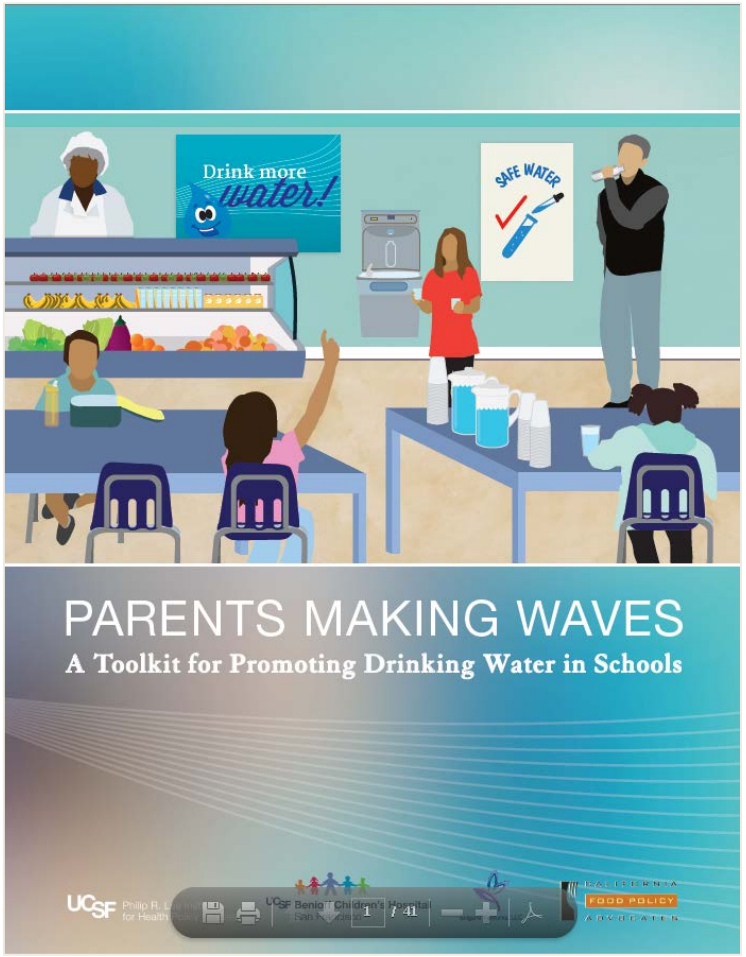
Parents Making Waves Tool Kit



- ✓Best practices
- ✓Resources
- ✓Tools

http://cfpa.net/Water/WaterToolkits/MakingWavesEnglish%20/ParentsMakingWavesEnglishFinal.pdf

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Water First Promotional Toolkit

Promotional Strategies

- Schools
- Child care
- Parks
- Clinics
- Other community sites

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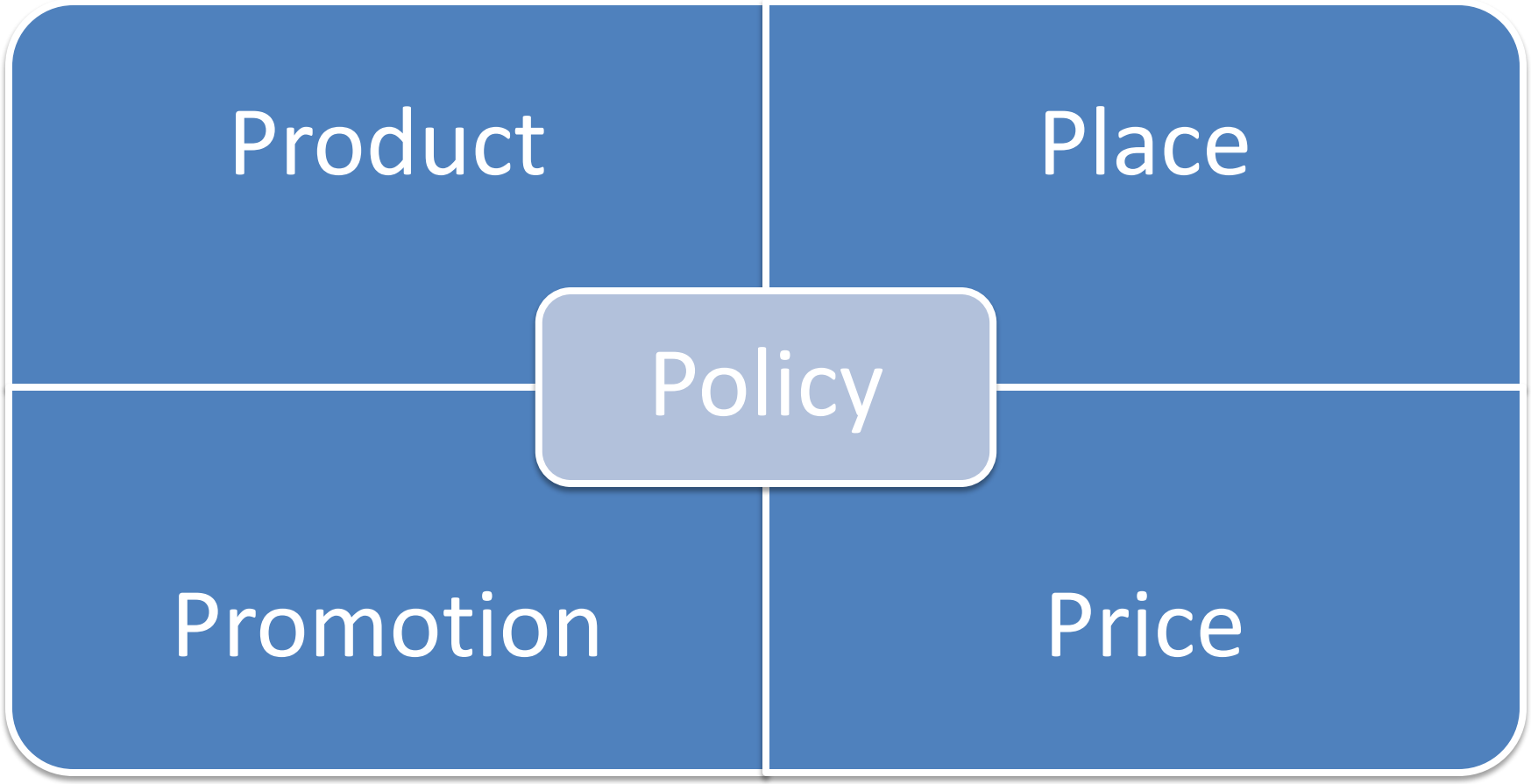
5 P's of Water Access



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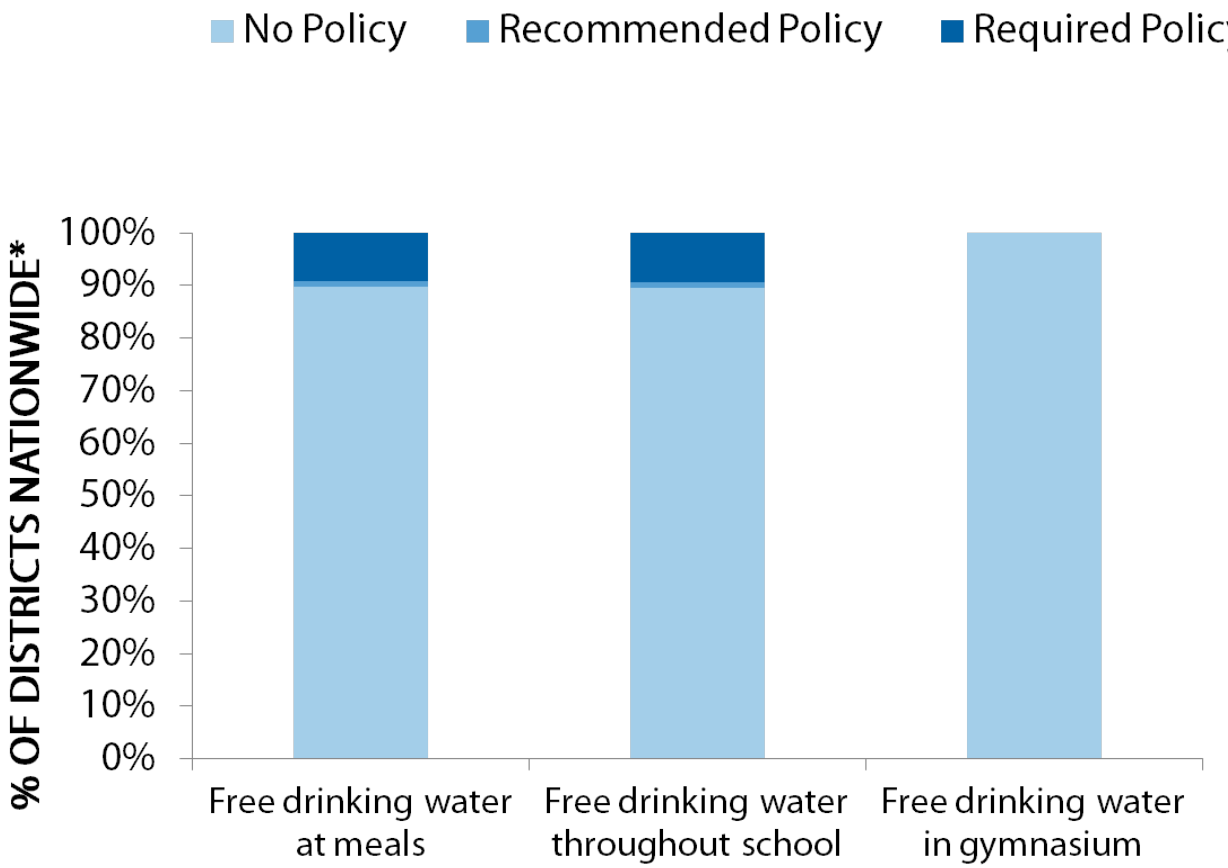
Policy Opportunities to Improve Access to Water in Schools

- State Policy
- Local School District Wellness Policy
- Other water-related policies and procedures
  - Water quality testing programs
  - Sustainability and IPM plans
  - Drinking water infrastructure assessments and annual maintenance planning

School District Water Policies

PERCENTAGE OF DISTRICTS WITH POLICIES TO PROVIDE FREE DRINKING WATER BY LOCATION, SY 2012–2013



***N=672 districts, weighted to represent districts nationwide.**
Source: Bridging the Gap Research Program, 2014

http://www.cdc.gov/healthyschools/npao/pdf/LWP_WaterAccess_Brief.pdf

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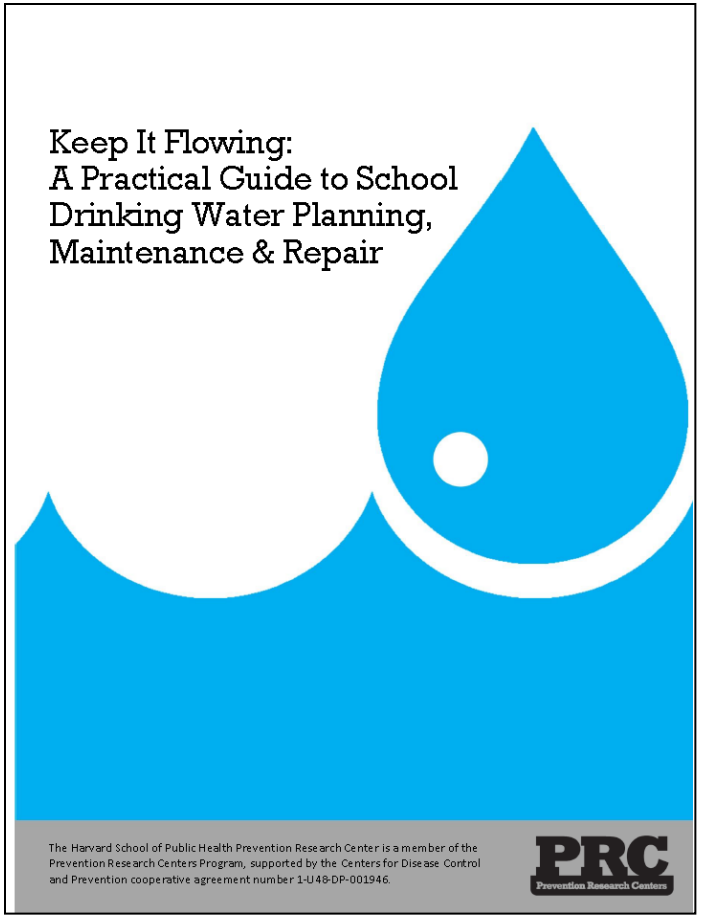
Water Policy Resources

- Wellness Policy Tools and Resources
  - CDC Water in Schools Toolkit
  - Parents Making Waves
  - ChangeLab Solutions
- Water quality and testing policy
  - Kellogg Foundation Report
  - EPA guides
- Other School Facility and Operations Policy
  - Keep it Flowing Guide

Keep it Flowing:



Outlines strategies to ensure adequate access to and maintenance of drinking water infrastructure

- Schools
- Districts and school boards and local education agencies
- State and tribal agencies and organizations

http://www.hsph.harvard.edu/prc/2014/09/24/keep-it-flowing/

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Potential Barriers or Concerns

- Milk consumption
- Water bottle policies
- Providing cups may increase litter
- Classroom management issues

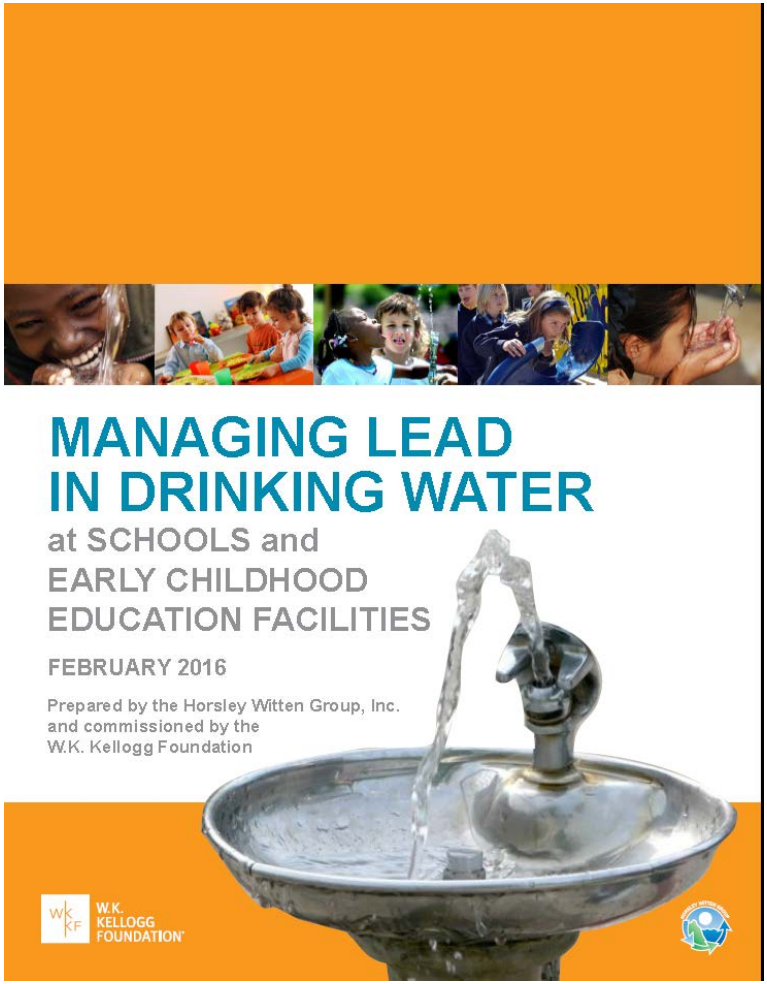
Water Quality and Safety

EPA Resources: Lead in Drinking Water at Schools and Child Care Facilities

- Information about the sources of lead in drinking water,
- Guidance materials to assist with testing for lead in drinking water, and
- Information on the laws and regulations concerning lead in drinking water

https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities

EPA's Safe Drinking Water Hotline:
1-800-426-4791



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Resources and More Information

- *Increasing Access to Drinking Water in Schools* Tool Kit, Centers for Disease Control and Prevention
- *WATER WORKS: A Guide to Improving Water Access and Consumption in Schools to Improve Health and Support Learning*, Water In Schools
- *Parents Making Waves: A Parent Toolkit for Promoting Drinking Water in Schools*, Water in Schools
- *Lead in Drinking Water at Schools and Child Care Facilities*, US Environmental Protection Agency
- *Managing Lead in Drinking Water at Schools and Early Childhood Education Facilities*, W.K. Kellogg Foundation
- *Water Availability During NSLP Meal Service*, USDA Food and Nutrition Service
- *Water Access in Schools*, Model Wellness Policy Language, ChangeLab Solutions
- *Water & Nutrition Basics*, Centers for Disease Control and Prevention
- *How State Plumbing Codes Can Increase Access to Drinking Water in Schools*, A Fact Sheet for Advocates, ChangeLab Solutions
- Water First , A toolkit for promoting water intake in community settings
- Keep it Flowing: A Practical Guide to School Drinking Water Planning, Maintenance & Repair

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Recording of this webinar and
list of resources shared available at:

http://nopren.org/working_groups/water-access/

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