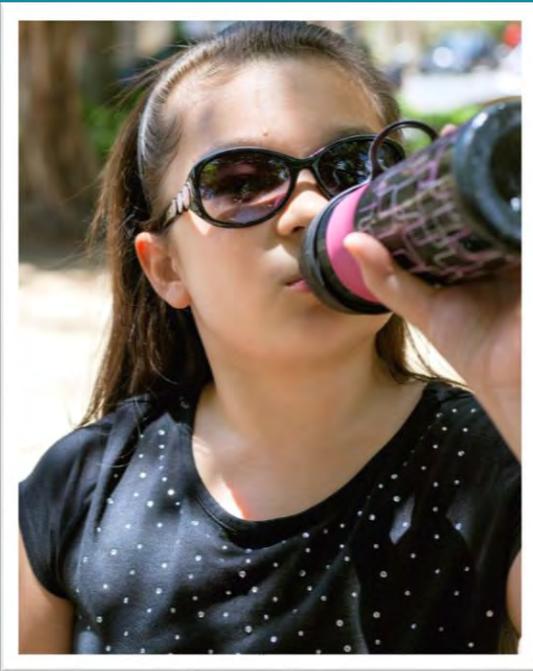# Increasing Access to Drinking Water in Schools Tool Kit

Step by step guidance on using the tool kit

Learning Objectives

1. Explain the benefits of providing students with access to drinking water during the school day

2. Describe how to use the tool kit to help schools increase access to drinking water

Water and Health

- Provides healthy alternative to sugar sweetened beverages

- Helps children maintain a healthy weight status

- Improves cognitive function

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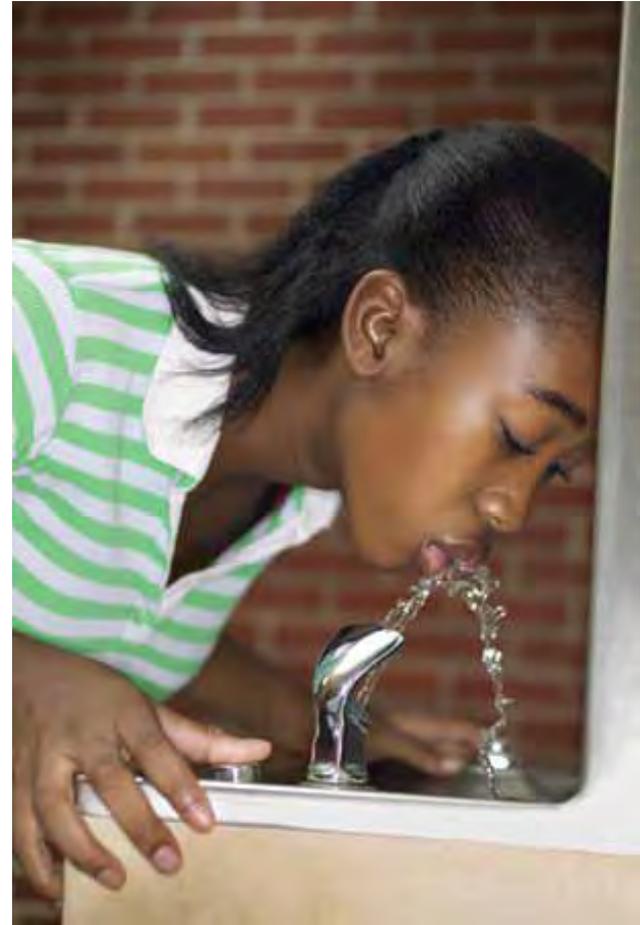
Child Care Hlth Dev 2007;33:409–15. *Pediatrics* 2009;123:e661–e667. *Arch Pediatr Adolesc Med.* 2009; 163(4):336–343. *Nutr Rev* 2010;68(8):439–458. *Hum Brain Mapp* 2011;32:71–79. *Appetite* 2009;53:469–472. *Appetite* 2009;52:776–779. *Appetite* 2009;53:143–146.

Water Access is Part of a Healthy School Nutrition Environment

Healthy, Hunger-Free Kids Act Requirements

Schools that participate in the USDA school meal programs are required to provide students with potable drinking water that is

- ✓ free of charge
- ✓ during meal times
  - ✓ where lunch meals and afterschool snacks are served
  - ✓ when breakfast is served in the cafeteria

7 CFR § 210.10(a)(1) and 7CFR § 220.8(a)(1)
https://www.gpo.gov/fdsys/pkg/FR-2016-07-29/pdf/2016-17227.pdf
SP 28- 2011: Child Nutrition Reauthorization 2010: Water Availability During National School Lunch Program Meal Service
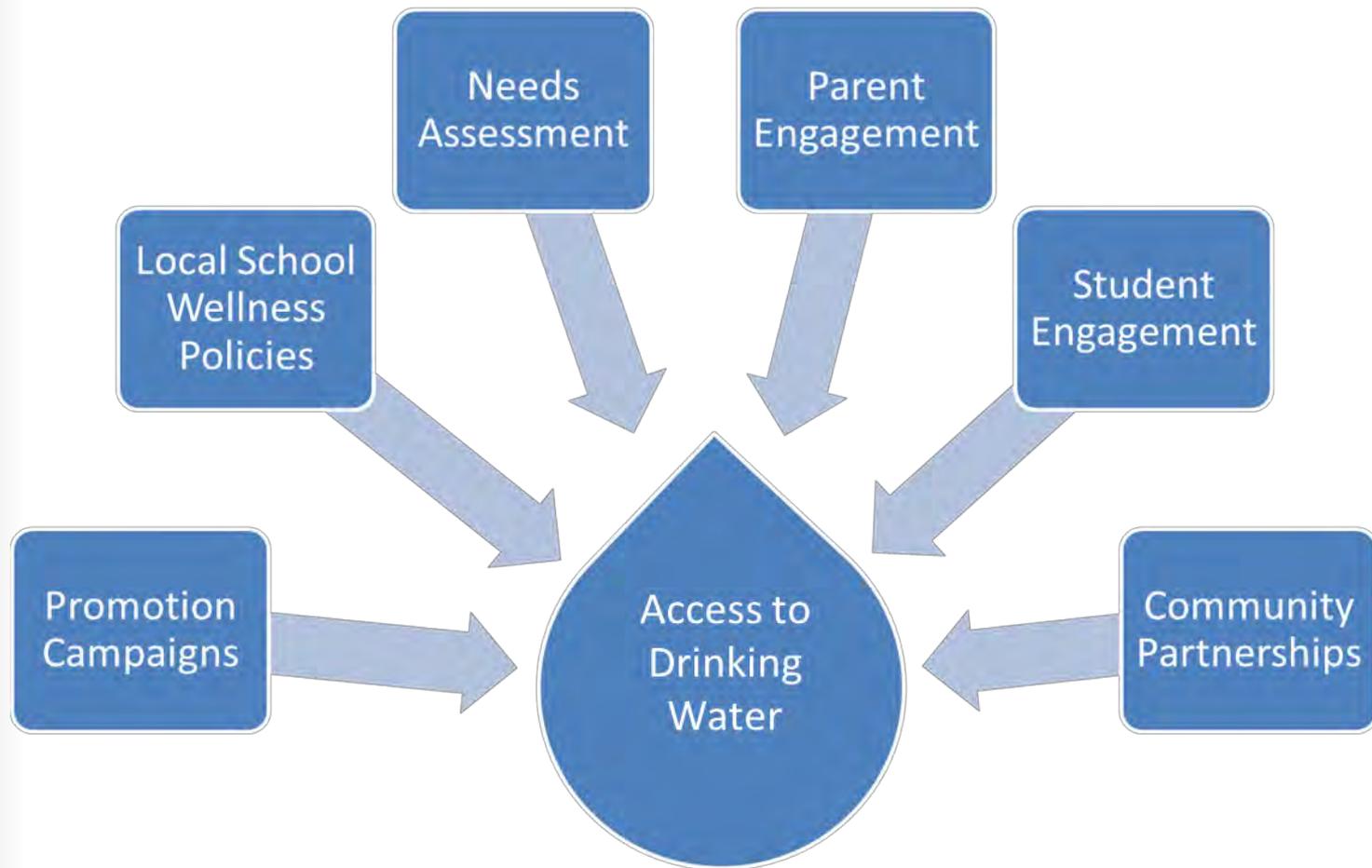
What does drinking water access look like in schools?

VS.

How can schools begin to address water access?

Increasing Access to Drinking Water in Schools Tool Kit
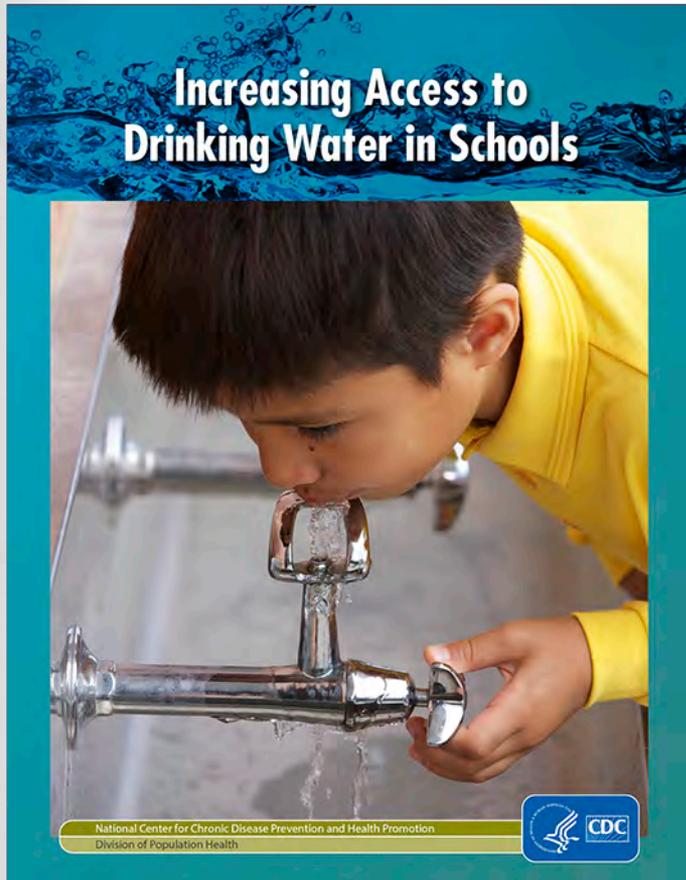
Who should use the tool kit?

- 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_508.pdf

Process for increasing access to drinking water in schools

Conduct needs assessment → Develop a plan → Put the plan into action → Evaluate progress → Revise plan as needed

Conduct a Needs Assessment

1 • Assess policies and practices related to water access

2 • Review water testing requirements and recommendations

3 • Identify the school's water access points

4 • Assess students' and other stakeholders' perceptions about the drinking water

5 • Identify key personnel to become water access champions

Step 1: Assess state, district, and school policies and practices related to water access

✓Food Service Areas

- Meet or exceed USDA requirements
- Sanitary code specific to food service areas.

✓Campus-Wide

- State or local plumbing codes with a fountain to student ratio
- Standard operating procedures (SOPs) for water delivery devices
- State or local laws or regulations on community water fluoridation.

School Drinking Water Needs Assessment Checklist	Response options		Notes
	Yes	No	
Step 1: Assess state, district, and school policies and practices related to water access.			
Food Service Areas			
a. Does the school provide students with access to drinking water during the meal periods, as required by USDA?			
b. Is there a state requirement that students have access to drinking water during meals and snacks?			
c. Is there a district policy requiring water to be provided during meals and snacks (e.g., Local School Wellness Policy)?			
d. Does the district or school have Standard Operating Procedures (SOPs) for placement, filling, and cleaning of bulk bottled water dispensers in the cafeteria?			
Other Areas in the School			
e. What are the state or local plumbing codes and requirements for the number of water access points? What is the fountains-to-students ratio in your school? Does it meet the plumbing code requirements?			
f. Are there state or local sanitary codes for cleaning and maintaining drinking fountains, water containers, hydration stations, and other methods for delivering drinking water?			
g. Does the school district have policies related to drinking water access? Policies may address providing students with access to water fountains or water filling stations throughout the school, allowing students to bring fillable water containers to class, allowing students to get up to get a drink of water during class, providing cups at water access points, and marketing or promoting drinking water during the school day or at school-sponsored events and activities.			

Step 2: Review federal, state, and local water testing requirements and recommendations

✓ Testing requirements depend on water source
  - local public water supplier (e.g., municipal water system)
  - public water system (e.g., well)

✓ EPA provides guidance for all schools on water testing requirements and recommendations
  https://www.epa.gov/schools-air-water-quality/schools-water-quality

Step 2: Review states and local water testing requirements and recommendations.

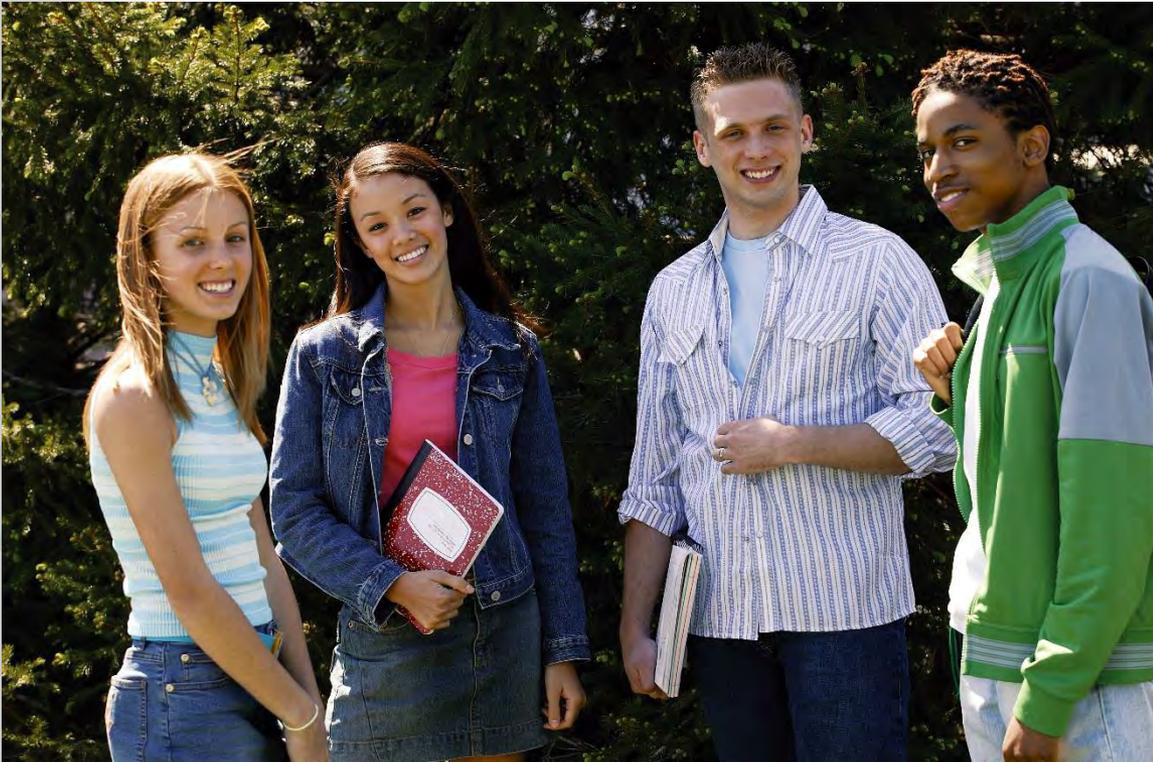|				
a.	Does your school meet the definition of a public water system and, therefore, comply with the Safe Drinking Water Act (SDWA)?			
b.	If so, does it meet all federal and state standards under the SDWA?			

Step 3: Learn about the school water environment

- ✓ Number of water access points
- ✓ Location of water access points
- ✓ Fountain-to-student ratio at the school
- ✓ Cleanliness of drinking water access points
- ✓ Availability of cups

Step 3: Conduct an assessment of the school water access environment.

a. What kind of building information does your school or district regularly collect? Does your facilities, maintenance, or environmental health division collect or maintain records of water access points or water quality testing results in your school district or individual school building?

- Are the following water access points available to students at school? (Please indicate the number and where they are located in the Notes column, for example, in the cafeteria, gymnasium, hallway.) Refer to Appendix 2 to learn more about the differences between each of these water access points.

    i.   Water fountains.

    ii.   Water coolers.

    iii. Bottle fillers.

    iv.   Pitchers or containers of water served at lunch.

    v.   Other (please describe).

b. Are the drinking water access points that are available to students clean and operating properly?

- Elements to assess include the clarity of the water, cleanliness (e.g., any visible dirt, gum, or trash), temperature of the water, and water pressure.

c. Are cups provided at drinking water access points?

d. Is there signage or other materials promoting drinking water in the school? Please include where this information is included.

Step 4: Assess perceptions about drinking water access at school

Ask about
- Accessibility
- Taste, health, and safety
- Barriers
- Ways to promote drinking water

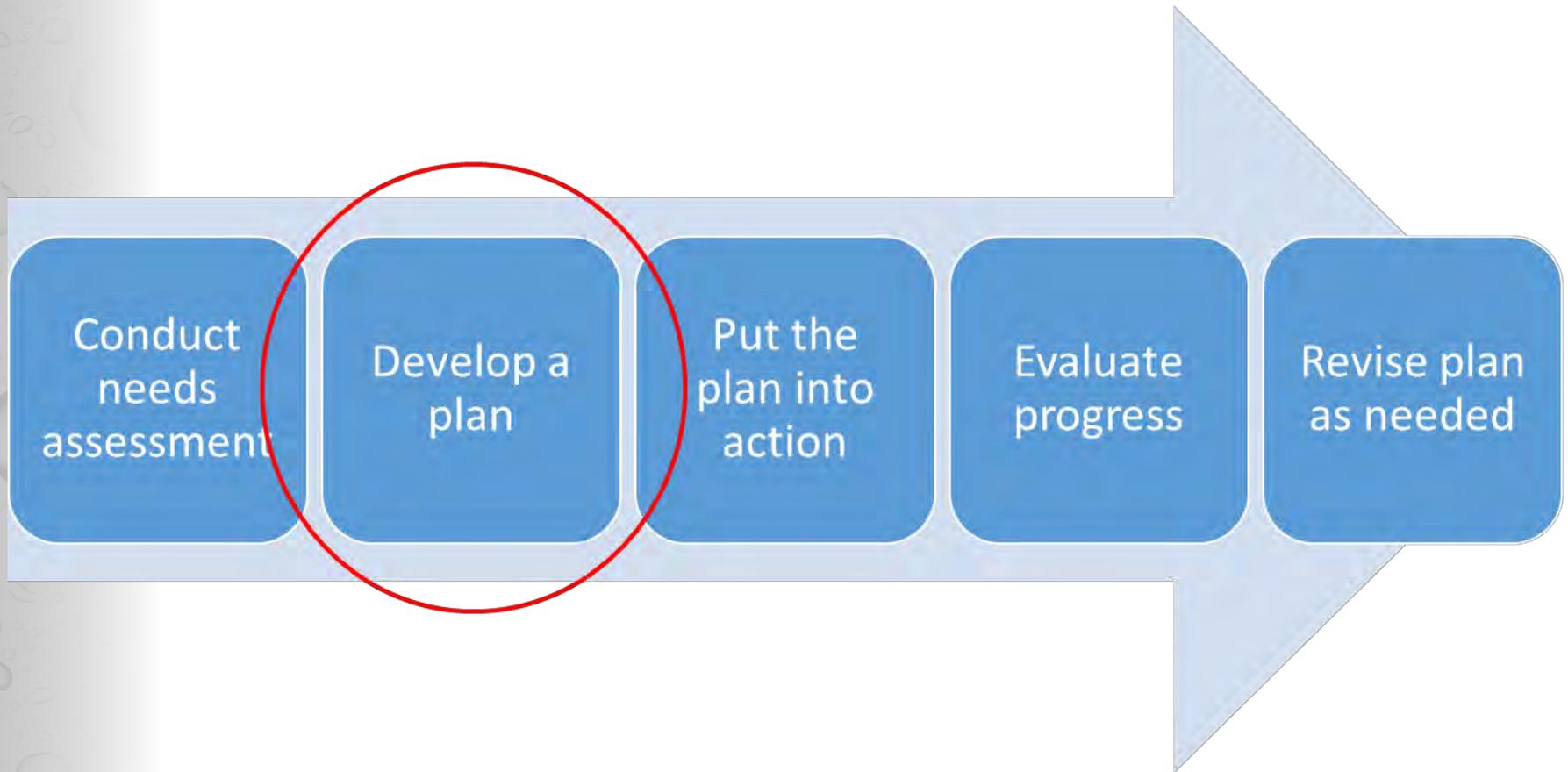*See sample assessment questions in Appendix 5

Step 5: Identify key water access champions

Potential water champions

- Parents
- Teachers
- School nutrition staff
- Students
- School wellness coordinators
- Community members

Process for increasing access to drinking water in schools

Develop a Plan

1. • Identify strengths and opportunities for improvement

2. • Identify priority actions

3. • Identify goals and objectives for each priority action

4. • Identify person(s) responsible for each objective

Identify Strengths, Opportunities, and Priority Actions

Planning Question 1: On the basis of the results from the School Drinking Water Needs Assessment, what are the strengths and areas for improvement in providing access to and consumption of drinking water?

Strengths	Areas for Improvement
1. *Example: All water access points are clean and operating properly.*	1. *Example: Students perceive that the tap water at school is not safe*
2.	2.
3.	3.
4.	4.
5.	5.

Planning Question 2: On the basis of the areas for improvement identified above, what are the recommended priority actions for improving access to and consumption of drinking water (e.g., increase funding for water-related programs, install one new water access point in the cafeteria, form a drinking water student committee)?
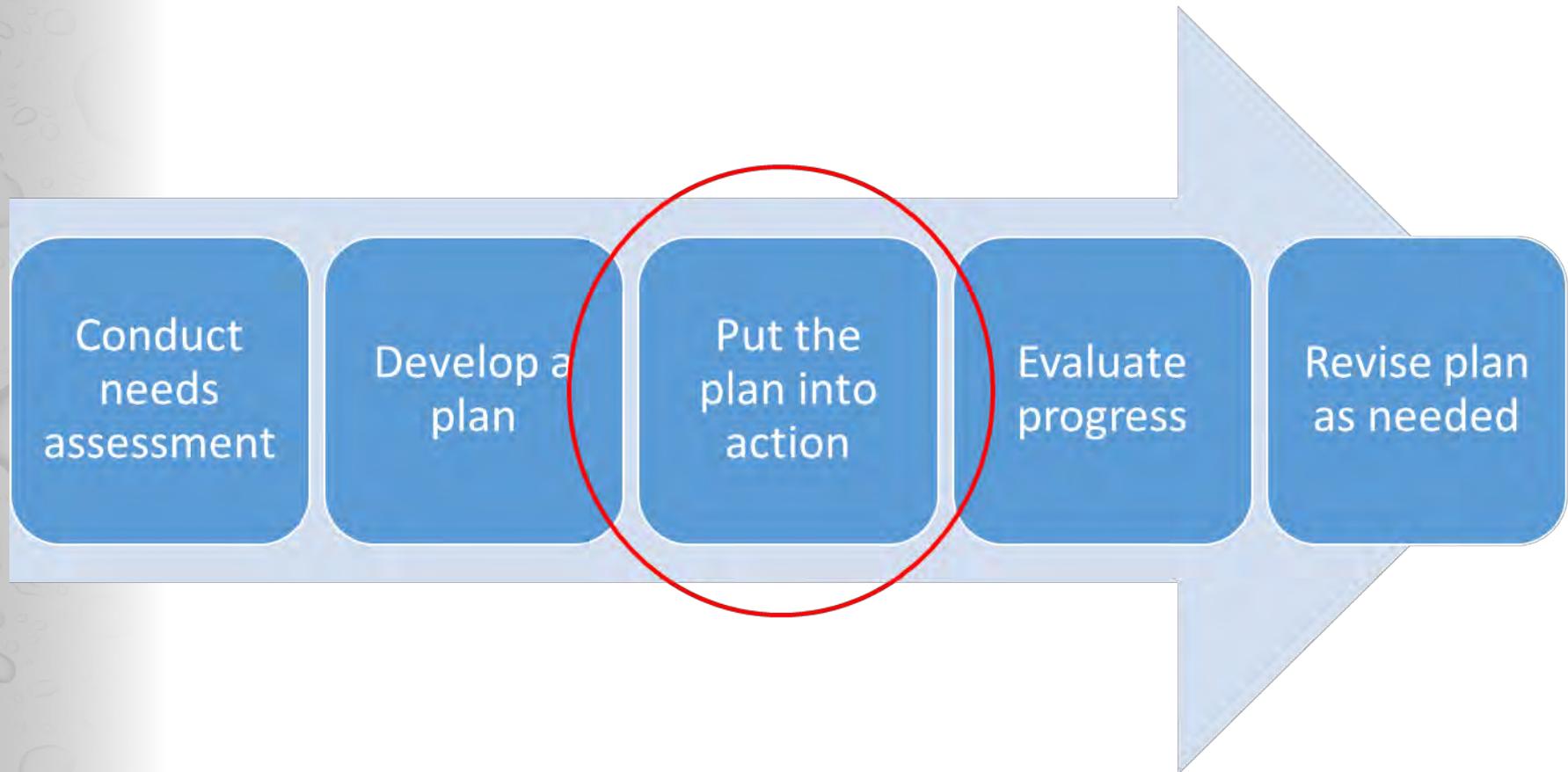
1. *Example: Develop and implement a water promotion campaign to address students' concerns about water safety.*

2. _____

_____

3. _____

_____

Identify goals and objectives for priority actions

	Fully Met/ Partially Met/ Not Met	Person Responsible for the Objective	Comments
Goal 1			
Develop and implement a water promotion campaign to address students' concerns about water safety.			
Objective 1.1 By the beginning of school year 2016, identify 6-8 students to participate in a committee.			
Objective 1.2 By November 2016, the student committee will identify 3-5 key messages for a water promotion campaign.			
Objective 1.3 By February 2017, develop posters and other materials by using the key messages identified by the student committee.			
Goal 2			
Objective 2.1			
Objective 2.2			
Objective 2.3			

Process for increasing access to drinking water in schools

Put the Plan into Action

1. • Seek opportunities for funding

2. • Gather partners to support the effort

3. • Select a water delivery method

4. • Identify personnel needs and training

5. • Develop water promotion strategies

6. • Address sustaining the water access plan long-term

Ideas for Funding

- School food service funds
- Federal, state, or municipal funding
- Foundation grants
- Partnership with private industry (e.g., reusable water bottle companies)
- Parent Teacher Association (PTA) fundraiser

Gather Partners

- Drinking water agencies and associations
- Health professionals, agencies, and associations
- Youth advocacy programs
- Education associations
- School facilities and custodial staff
- State department of environmental protection
- Foundations that address health
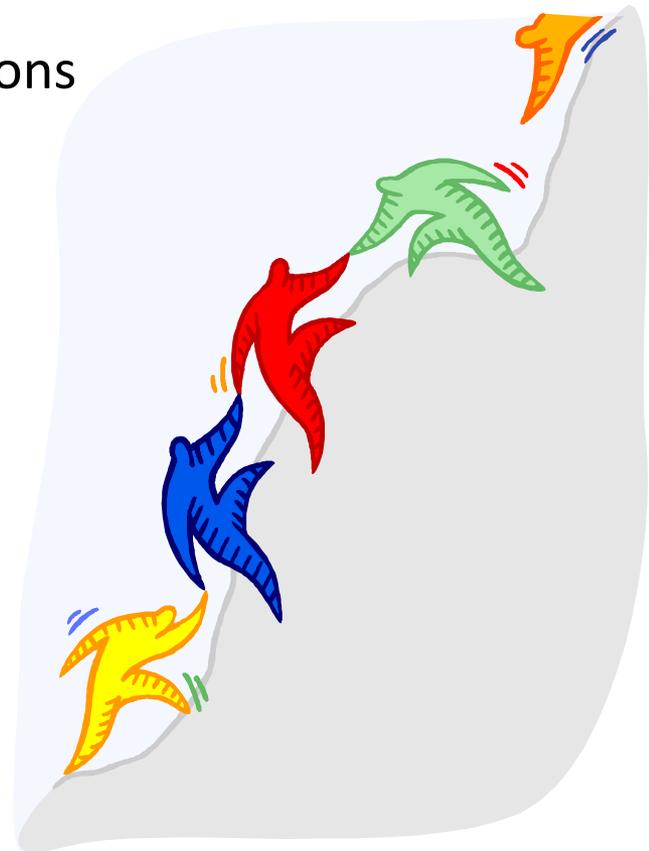
Water Delivery Methods

- ✓ Know your budget
- ✓ Decide where the water access point(s) will be located
- ✓ Consider providing cups or allowing the use of reusable water bottles

Appendix 3: Examples of Water Dispensers for Schools

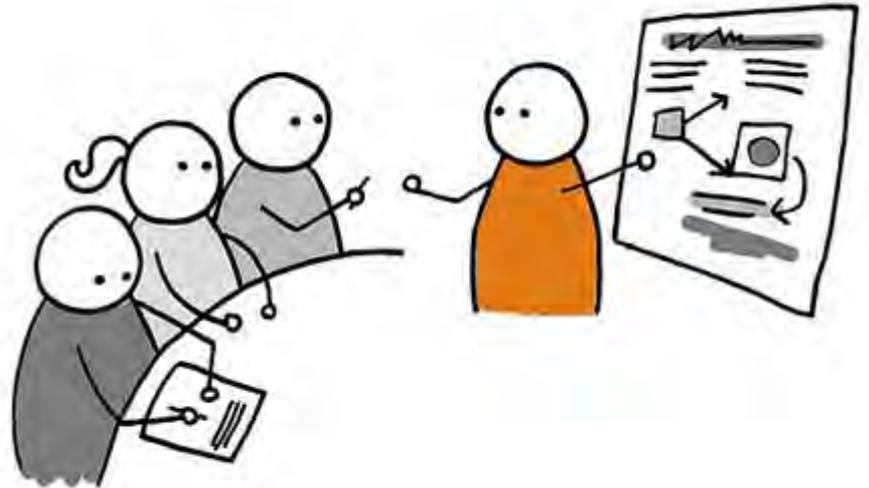| Water Dispenser	Type	Price*	Considerations
	Portable Water Dispenser	$	• Potential weight concern for staff refilling container in the sink. • Requires room for storage. • Account for expenses to provide cups. • Requires access to commercial dishwasher or other way to sanitize.
	Water Dispenser	$	• Will require staff to refill container. • Potential storage concern. • Need committed nutrition services staff. • Account for expenses to provide cups.
	Water Cooler	$/month	• Monthly fee for leasing machine. • Option for filtered water, which may alleviate students' perceptions about public water sources. • Station needs to be placed near existing water source and electric outlet for cold water. • May need to disable the hot water spout. • Easy to install. • Account for expenses to provide cups.
	Bottle Filler	$$$$	• Station needs to be placed near existing water source. • Filtered water. • Ideal for school cafeterias that are undergoing construction because it will make installation easier and be cost effective. • Sleek-looking and may alleviate students' perception that public water sources are unsafe. • Some models display how many bottles are saved from waste. • Account for expenses to provide cups if students do not have refillable water bottles.
	Water Fountain with Bottle Filler	$$$-$$$$	• Must be placed near existing water source. • Filtered water. • Ideal for school cafeterias undergoing construction because it will make installation easier. • Sleek-looking and may alleviate students' perception that public water sources are unsafe. • Some models display how many bottles are saved from waste.

*Price Key (per unit): $ = $1–$99; $$ = $100–$499; $$$ = $500–$999; $$$$ = $1,000–$5,000.

Source: Adapted with permission from
http://waterinschools.org/pdfs/CFPA_WaterDispenserOptions.pdf.

Identify Training Needs

- Additional staff time
- Labor contracts
- Training for school staff

Ideas to Promote Water

- Place signs near water fountains and dispensers
- Include messages about the benefits of water in school newsletters and communication materials
- List water on the school meal menus
- Include content about water into lesson plans
- Engage students in water promotion activities

Examples of Water Promotion Campaigns

Potter the Otter
http://www.potterloveswater.com/

Drink Up
http://www.youarewhatyoudrink.org/

Rethink Your Drink
http://www.cdph.ca.gov/programs/wicworks/Pages/WICRethinkYourDrink.aspx

Louisville Pure Tap
http://www.louisvillepuretap.com/
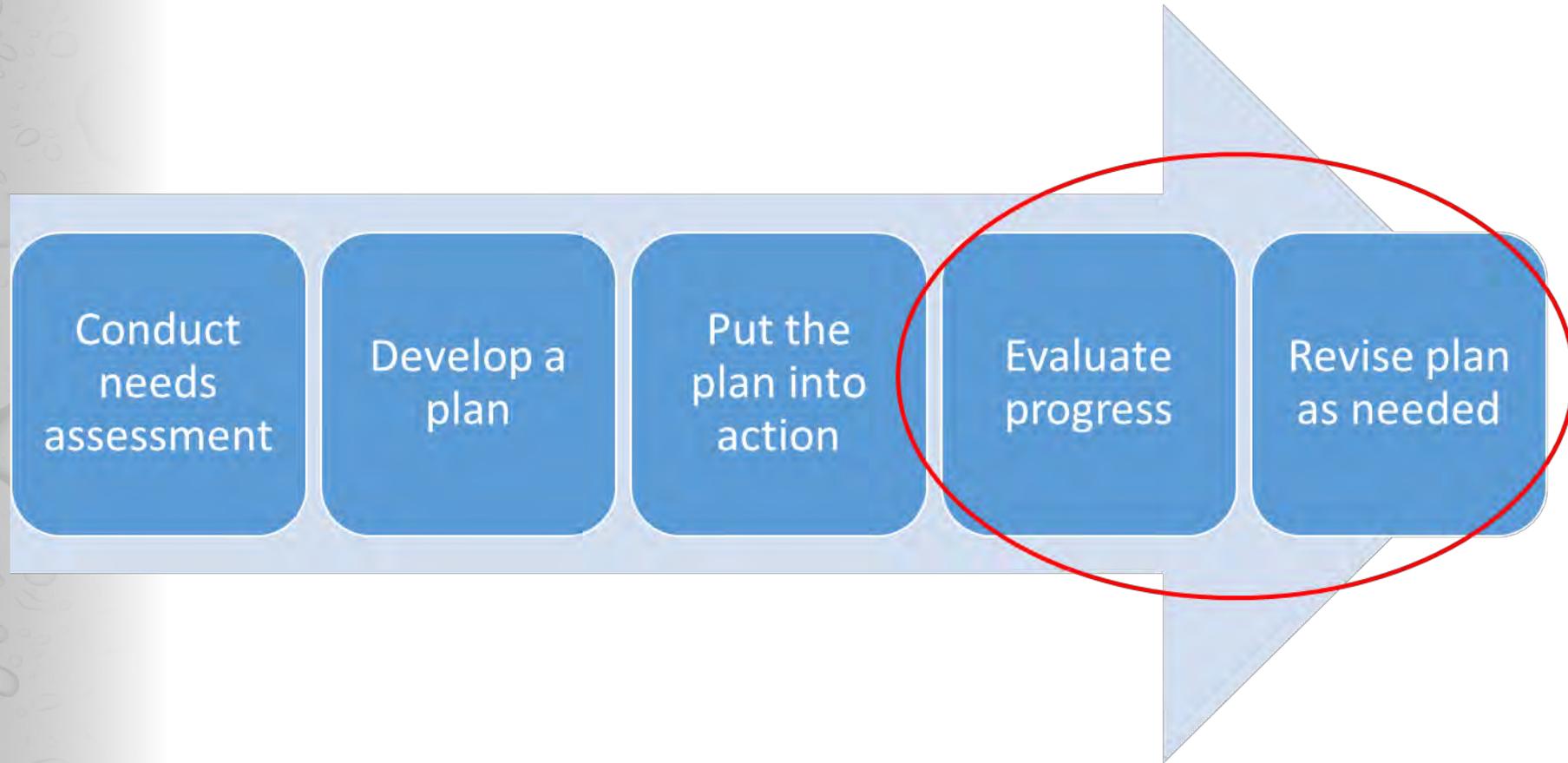
Address Sustainability

- Budget for necessary supplies and repairs
- Include language about water access to district policies
- Ensure that district maintenance and food service policies specify who is responsible for maintaining water dispensers
- Promote water access
- Share success stories

Process for increasing access to drinking water in schools

Evaluate Progress

1. • Process evaluation

2. • Outcome evaluation

3. • Use results to inform program or policy improvements

Example Process Evaluation Questions

- Were water access points added in the school setting? If so, how many?

- Are cups provided at water access points? If so, how many cups were used? What was the cost of providing the cups?

- Has language on water access been added to the local school wellness policy or other school policy?
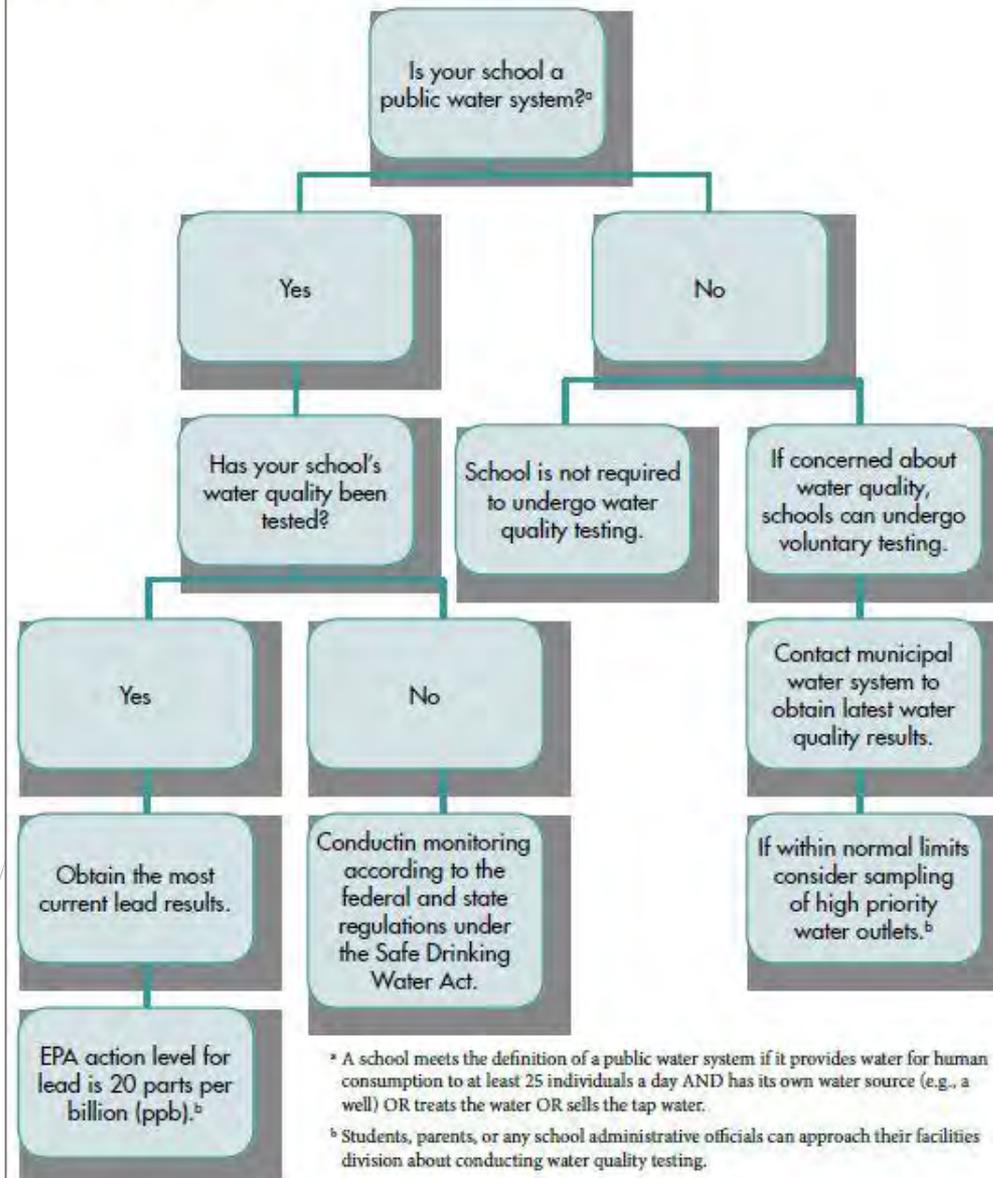
Example Outcome Evaluation Questions

- Have students' perceptions of access to water among school settings changed?

- Have students' attitudes and preferences related to water changed?

- Have students' consumption of water and other beverages changed?

Appendices

Appendix 2: Diagram of Water Testing In Schools

This diagram outlines the water testing process for schools.

```
                        Is your school a
                        public water system?a

            ┌──────────────────────────┴──────────────────────────┐
            Yes                                                    No
            │                                       ┌───────────────┴───────────────┐
    Has your school's                      School is not required      If concerned about
    water quality been                     to undergo water            water quality,
    tested?                                quality testing.            schools can undergo
    │                                                                  voluntary testing.
 ┌──┴──────────┐                                                              │
 Yes           No                                                    Contact municipal
 │             │                                                     water system to
 │     Conductin monitoring                                          obtain latest water
 Obtain the most   according to the                                  quality results.
 current lead      federal and state                                        │
 results.          regulations under                                 If within normal limits
 │                 the Safe Drinking                                 consider sampling
 │                 Water Act.                                         of high priority
 EPA action level for                                                water outlets.b
 lead is 20 parts per
 billion (ppb).b
```

a A school meets the definition of a public water system if it provides water for human consumption to at least 25 individuals a day AND has its own water source (e.g., a well) OR treats the water OR sells the tap water.

b Students, parents, or any school administrative officials can approach their facilities division about conducting water quality testing.

Appendix 3: Examples of Water Dispensers for Schools

Water Dispenser	Type	Price[a]	Considerations
	Portable Water Dispenser	$	• Potential weight concern for staff refilling container in the sink. • Requires room for storage. • Account for expenses to provide cups. • Requires access to commercial dishwasher or other way to sanitize.
	Water Dispenser	$	• Will require staff to refill container. • Potential storage concern. • Need committed nutrition services staff. • Account for expenses to provide cups.
	Water Cooler	$/month	• Monthly fee for leasing machine. • Option for filtered water, which may alleviate students' perceptions about public water sources. • Station needs to be placed near existing water source and electric outlet for cold water. • May need to disable the hot water spout. • Easy to install. • Account for expenses to provide cups.
	Bottle Filler	$$$$	• Station needs to be placed near existing water source. • Filtered water. • Ideal for school cafeterias that are undergoing construction because it will make installation easier and be cost effective. • Sleek-looking and may alleviate students' perception that public water sources are unsafe. • Some models display how many bottles are saved from waste. • Account for expenses to provide cups if students do not have refillable water bottles.
	Water Fountain with Bottle Filler	$$$-$$$$	• Must be placed near existing water source. • Filtered water. • Ideal for school cafeterias undergoing construction because it will make installation easier. • Sleek-looking and may alleviate students' perception that public water sources are unsafe. • Some models display how many bottles are saved from waste.

[a]Price Key (per unit): $ = $1–$99; $$ = $100–$499; $$$ = $500–$999; $$$$ = $1,000–$5,000.

Source: Adapted with permission from
http://waterinschools.org/pdfs/CFPA_WaterDispenserOptions.pdf.

Strategies to Overcome Potential Challenges

Key topics addressed

- Milk consumption

- Providing cups

- Water safety

- Tap water taste

- Water bottles

Appendix 4: Strategies to Overcome Potential Challenges

Stakeholders may express concerns about increasing access to drinking water in schools. Below are examples of some common concerns and suggestions to prevent and address these concerns.

Students' consumption of milk will decrease during school meals.

Although there has not been a lot of research on this particular issue, unpublished research demonstrates that milk consumption is not significantly decreased when drinking water is made available to students in the cafeteria. Water is not a replacement for milk at meals, but rather an additional beverage that is available to students.

Providing cups at water access points will increase littering in the school.

Providing cups at water access points has been shown to increase the amount of water that students consume.[21] However, there is a concern students will not properly dispose of the cups after they drink from them. One way to prevent littering is to ensure that trash or recycling receptacles are available near all water access points. In addition, policies and practices encouraging students to bring their own reusable water bottles to schools can help to reduce the need for disposable cups.

Concern that tap water is not safe.

Most tap water in the United States is assured by the United States Environmental Protection Agency standards and regulations to be clean and safe for drinking.[28] However, in some cases, tap water may not be safe to drink because of unsafe plumbing systems or contaminated water sources. It is important to have drinking water tested so that water quality problems are addressed when they exist. If water quality problems cannot be fixed, then schools should use alternate methods of providing drinking water to students, including installing point-of-use filtration systems that are certified to remove contaminants, or purchasing drinking water for students and staff. It is a good idea to regularly communicate drinking water testing results and actions to students, parents, and the community. Schools may consider starting a campaign to actively promote water quality or work with local organizations on a community-wide tap water promotion campaign. (See pages 29–30 for ideas about water promotion campaigns.)

Students do not like the taste of the local tap water.

Even though most tap water is safe to drink, the taste of the water varies depending on the source. Filtering water and chilling the water are two strategies that may improve the taste.

Key Stakeholder Sample Interview Questions

Interview Questions Address

- Availability of water
- Attitudes and perceptions
- Barriers and facilitators

Appendix 5: Water Access Key Stakeholder Sample Interview Questions

Basic Information

Date of Interview:	Type of Stakeholder:
Coder Initials:	Title of Stakeholder:
Identification Number:	Type of Organization:

Topic #1: Accessibility of Drinking Water in Schools

What type of access do students have to drinking water in school?
Probe: Examples could include water fountains, bathrooms sinks, bottled water from vending machines, water coolers, hydrations systems, water brought from home, pitchers of water served at lunch, and water as a part of the meal tray.

Do you think students have adequate access to drinking water in public schools?

Topic #2: Attitudes and Perceptions About Current Drinking Water in Schools

What are potential barriers to drinking water in schools?
Probe: Examples could include inadequate number of water access points, inconvenient location of water access points, water safety concerns, poor maintenance of drinking water outlets, broken or dirty water fountains, poor water taste, warm and unappealing water color.

Topic #3: Attitudes, Barriers, and Facilitators for Providing Drinking Water in Schools

In your opinion, how should water be offered in schools?
Probe: Examples could include water fountains, bottled water from vending machines, water coolers, hydrations systems with cups vs. refillable water bottles, water brought from home, pitchers of water served at lunch, and water as a part of the meal tray.

Success Stories

Successful Water Access Wellness Policies

Earlimart School District (CA)
- Provides students and employees with drinking water free of charge
- Allows students to bring drinking water from home and into the classrooms
- Encourages school administrators, teachers, and other staff to model drinking water.
- District performs maintenance and testing of all water fountains regularly
- Makes test results available in an easily accessible format.

http://www.californiaprojectlean.org/docuserfiles/Case%20Studies_Earlimart-Final.pdf

Successful Funding for Water Access and Promotion in Schools

Water jets in NYC schools funded by city departments of health and education

Photos courtesy of Dr. Brian Elbel, NYU School of Medicine

Successful Partnerships

Photos courtesy of
Louisville Water Company

http://www.louisvillepuretap.com

Case Studies

A number of case studies exist that illustrate innovative ways in which schools districts are promoting water access and consumption.

Spotlight Case Study

- Parents can advocate for change at their children's school. Here are examples of parents who connected, created and contributed to make a positive impact.
  Learn More

School District Case Studies

Bellevue Union School District, Santa Rosa, CA

- In the winter of 2010-11, the district, located in the northern San Francisco Bay Area, began installing drinking water stations in the lunch rooms at its four elementary schools. The stations consist of tall "glass-filler faucets" mounted on existing water fountains.
  Learn More

Ceres Unified School District, Ceres, CA

- The Ceres Unified School District leased water stations for three elementary schools in their district, located in California's Central Valley. Based on student response, they decided to expand districtwide to all elementary schools.
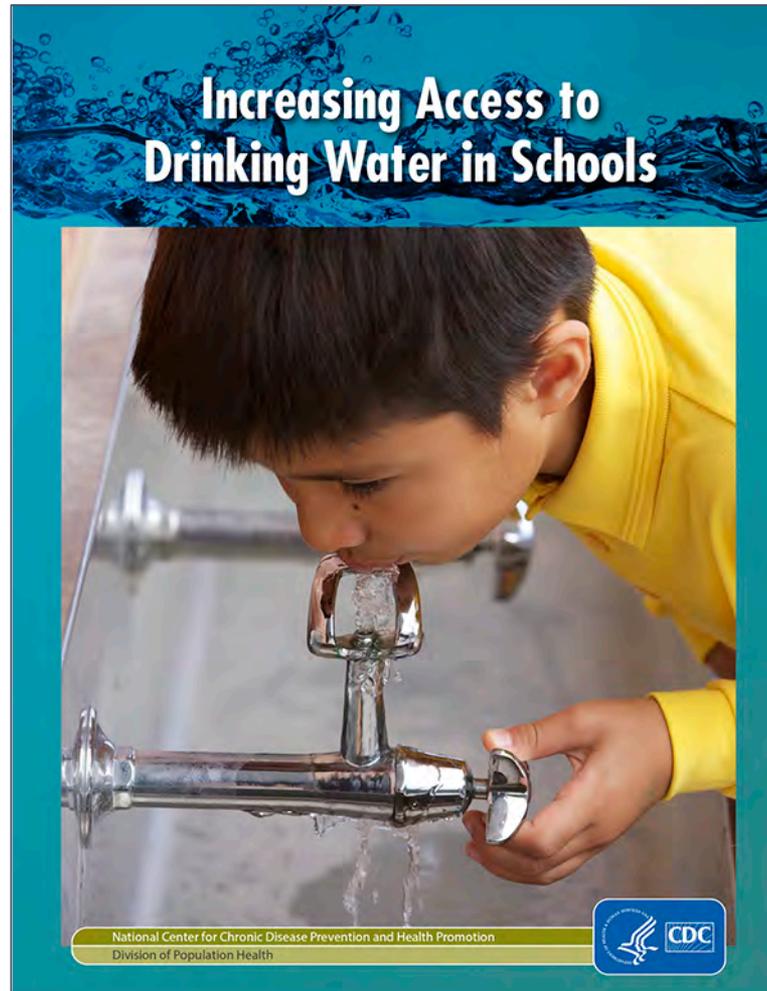
Why Water?

State of the Tap

What's Required

Benefits of Water

www.waterinschools.org

Download the Tool Kit!

http://www.cdc.gov/healthyschools/npao/pdf/water_access_in_schools_508.pdf

For more information please contact:
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Division of Population Health
School Health Branch
1600 Clifton Road NE
Atlanta, GA 30333

1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348
cdcinfo@cdc.gov

http://www.cdc.gov/healthyschools/
www.cdc.gov/bam