Water To Go: Increasing Water Intake among Children in Santa Clara County

Santa Clara County Healthier Kids Foundation Symposium

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FIRST 5 Santa Clara County

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Presentation Goals

- Why is water provision and promotion important?
- Overview of Water To Go Project and evaluation
- Preliminary results from Water To Go evaluation
Background
Improving Water Intake Among Children is Important

- Drinking water instead of sugary drinks can prevent obesity and dental caries
- Being properly hydrated can help children learn
- Most U.S. children and adolescents do not drink enough water during the day
Many Children May Not Drink from Fountains

- Fountains are the most common water source

- Children may not drink from fountains due to concerns about:
  - Tap water safety
  - Poor water palatability
  - Improper fountain upkeep
  - Inadequate access
  - Lack of cups or water bottles
Access to Appealing Water Increases Water Intake

Students Reporting Water Intake at Lunch (%)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispenser</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Cooler</td>
<td>39</td>
<td>49</td>
</tr>
<tr>
<td>Fountains</td>
<td>34</td>
<td>34</td>
</tr>
</tbody>
</table>
Water to Go Program
The Water to Go Program

- **Purpose:**

  Water to Go aims to increase access to and utilization of safe, fresh tap water for children and families through the installation and promotion of 100 water bottle filling stations.

- **Water to Go Partners:**
Water to Go – Inspired by Legislation

- **California SB1413**
  - Enacted in September 2010
  - Requires all schools in California to provide access to free, fresh drinking water during meal times

- **Healthy, Hunger-Free Kids Act**
  - Enacted in December 2010
  - Improves child nutrition policy in many important ways
    - Includes a provision requiring schools participating in federal meals programs to make free drinking water available with school meals
Water to Go – Selection Criteria

- FIRST 5 and Santa Clara Valley Water District School Selection Criteria:
  - Schools with children with body mass index (BMI) scores considered “high risk”
  - Schools located near pre-school/childcare centers or FIRST 5 Santa Clara County Family Resource Centers
  - Broad geographic representation

- Santa Clara County Public Health Site Selection Criteria:
  - Areas accessible to the public
  - Fill a need for drinking water access
  - In an area with high use by children and families
## Water to Go School Affiliated Sites

<table>
<thead>
<tr>
<th>SCHOOL DISTRICT</th>
<th>SCHOOL SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum Rock Union</td>
<td>Chavez, Arbuckle, Hubbard, Linda Vista, Lyndale, Cureton, McEntee/Russo, McCollam</td>
</tr>
<tr>
<td>Berryessa Union</td>
<td>Northwood</td>
</tr>
<tr>
<td>Campbell Union</td>
<td>Sherman Oaks</td>
</tr>
<tr>
<td>East Side High School District</td>
<td>Overfelt, Yerba Buena, Evergreen Valley</td>
</tr>
<tr>
<td>Franklin McKinley</td>
<td>Dahl, Santee, Kennedy</td>
</tr>
<tr>
<td>Gilroy Unified</td>
<td>Rod Kelley</td>
</tr>
<tr>
<td>Moreland</td>
<td>Leroy Anderson</td>
</tr>
<tr>
<td>Morgan Hill Unified</td>
<td>El Toro</td>
</tr>
<tr>
<td>Mountain View-Whisman</td>
<td>Theurkauf</td>
</tr>
</tbody>
</table>
Water to Go – Elementary School Program

- Installation of hydration stations (reusable water bottle filling stations) in school cafeterias
- Promotion of stations
  - “Potter the Otter” signs near stations
  - Short Sugar Savvy presentation for students/teachers
  - Potter the Otter play (preschool-3rd grade)
  - Potter the Otter books for students to take home (TK-3rd grade)
  - Water bottle distribution to students and teachers
Hydration Stations and Signs
Promotional Launch Events
Distribution of Water Bottles
Program Evaluation
Water to Go – School Evaluation

- Participants:
  - Water To Go “intervention” schools and matched control schools
  - Evaluation before and after the program

- Main outcomes:
  - Number and function of existing water sources (school water audit)
  - Student intake of water, SSBs, milk, and juice
    - Student surveys
    - Lunchtime observations of student intake
    - Flowmeter readings from water stations and fountains
Water to Go – School Evaluation

- Secondary outcomes
  - Beverage offerings in child care centers near study schools
    - Child care provider surveys
  - Teacher and child care provider intake of beverages at school/child care centers
    - Teacher surveys
    - Child care provider surveys
Baseline Results
## School Characteristics by Intervention Status

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>INTERVENTION (n=10)</th>
<th>CONTROL (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment (mean)</td>
<td>508.5</td>
<td>537.3</td>
</tr>
<tr>
<td>Free and Reduced Price Lunch Eligibility</td>
<td>89%</td>
<td>71%</td>
</tr>
<tr>
<td>English Language Learners</td>
<td>62%</td>
<td>52%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>78%</td>
<td>55%</td>
</tr>
<tr>
<td>Asian</td>
<td>17%</td>
<td>34%</td>
</tr>
<tr>
<td>African-American</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Water Access in Evaluation Schools

N=20

- No Water: 5
- Fountain: 4
- Jug: 4
- Station: 7

N=5 schools had no water access
Time to Fill a Water Bottle by Water Source in School Cafeterias

Fill Time (seconds)

- Station: 4.6 seconds
- Jugs: 6.4 seconds
- Fountain: 10.9 seconds
Mean Temperature of Cafeteria Water Sources (Fº)

- Fountain 67.5
- Station 59.9
- Jug 58
Unappealing Cafeteria Water Access
Provision of Cups

- 8 of 15 schools with cafeteria water access provided cups
- 3-4 ounce paper cups
- Cost covered by food service
Promotional Signage
Students Observed Accessing Free Water in School Cafeterias at Lunch

- Fountains: 1 student
- Jugs: 7 students
- Stations: 8 students

UCSF
Students Observed Accessing Free Water in School Cafeterias at Lunch

- No Cups: 2 students
- Cups: 10 students

UCSF
Students Observed Accessing Free Water in School Cafeterias at Lunch

- Stations without Cups: 4
- Jugs with Cups: 7
- Stations with Cups: 13

UCSF
Students Observed Drinking Beverages from Home in Cafeterias at Lunch

- Juice: 1
- Single-Use Water: 2
- Reusable Water Bottles: 2
- SSB: 4
Conclusion
Discussion

- Few students drink water in school cafeterias
- Installation of stations improves palatability and intake
  - Improves temperature and water bottle filling time
  - Leads to an 8-fold increase in the percent of students who drink from cafeteria water sources at lunch
- Installation of appealing water sources without cups or reusable water bottles may not sufficiently increase intake
- SSBs are the most common beverages from home
Next Steps

- Examine Water to Go Program’s impact on:
  - Intake of water and other beverages among students in child care and elementary schools
  - Teacher and child care provider intake of water and other beverages