



# Free Water Access On UW-Seattle Campus

School of Public Health

Nutritional Sciences Program

March 19, 2013



# Introduction

- **Rising obesity prevalence**
  - *Public policy is a powerful tool*
- **Sugary drinks = more calories**
- **Weight gain → problems**
  - *Decreased productivity*
  - *Decreased quality of life*
  - *Medical costs*
  - *Chronic disease risk*



# Creating A Healthy Environment

- Healthy People 2020 Goals
- Institute of Medicine Recommendations
  
- **Creating food and beverage environments that promote health by ensuring that healthy options are the routine, easy choice**



# Factors Influencing Water Consumption

- *Safety concerns*
- *Cleanliness*
- *Water pressure*
- *Functionality*
- *Taste*
- *Appearance*



# Public Health Goal

**Reduce chronic disease by lowering consumption of sugary drinks through promotion of free drinking water**



# Statement of Purpose

- **Assess sources of free drinking water**
  - **Quality**
  - **Ease of access**
- **Understand barriers and policy solutions**
- **Assess relevant policies and make recommendations**



# Data Collection

- **277 fountains and bottle fillers in 36 buildings**
  - *Flow rate*
  - *Temperature*
  - *Clarity, smell, color*
  - *Cleanliness*



**Ideal Fountain**



# Data Analysis

- **274 analyzed**
- **Flow rate:**
  - *Fast: <40 sec*
  - *Medium: 40-72 sec*
  - *Slow: >72 sec*
- **Appearance:**
  - *Clean*
  - *Dirty: solids, rust, stains*
- **Temperature:**
  - *<15°C*
  - *15-20°C*
  - *>20°C*







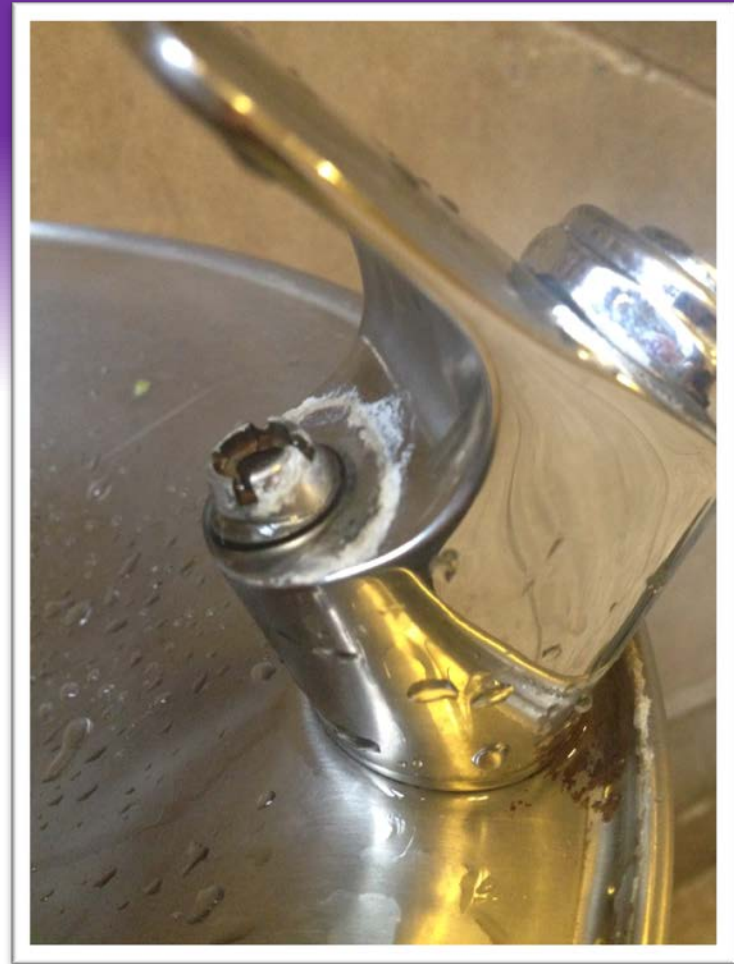
## Slow Drainage

Data Collection Photo





**Broken Fountain**



**Mineral Deposits on faucet**



# Results

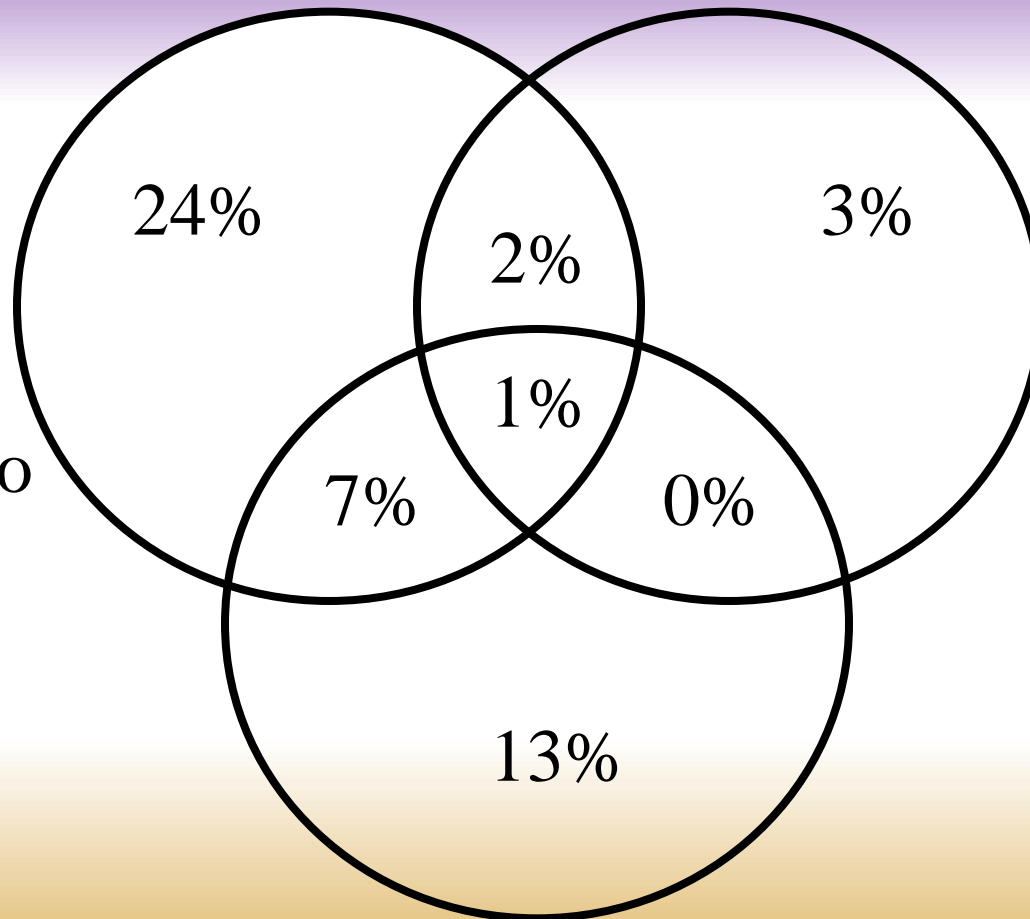
Measured Characteristics	Value
Average time to fill (seconds)	27.0
Average temperature (°C)	14.5
Clear water	97.5%
Odorless water	96.7%
Colorless water	99.6%
Mold/mildew	1.4%
Fluid waste	0.7%
Solid waste	13.1%
Rust	9.9%
Damage-free	99.3%
Mineral deposits	21.5%



# Distribution of Problem Fountains

Temperature  $>15^{\circ}$

$>40$ sec to fill 24oz bottle

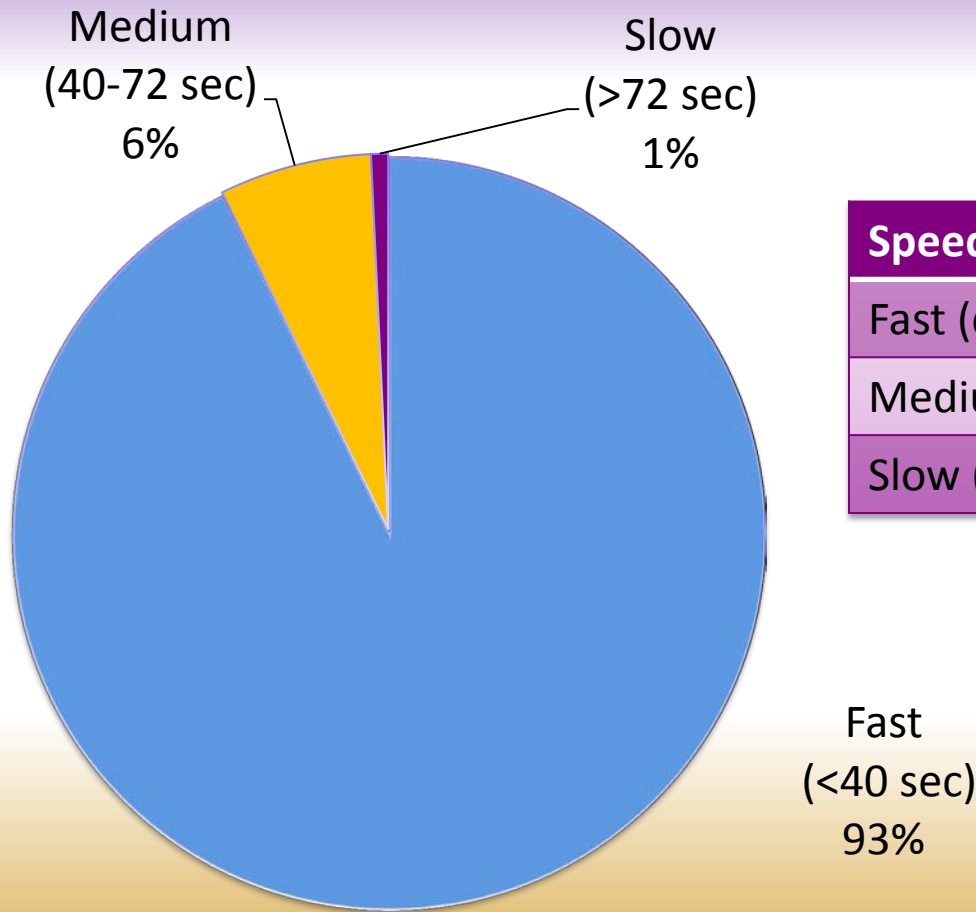


- 58% had no problems
- 42% had problems

Dirty (not including mineral deposits)



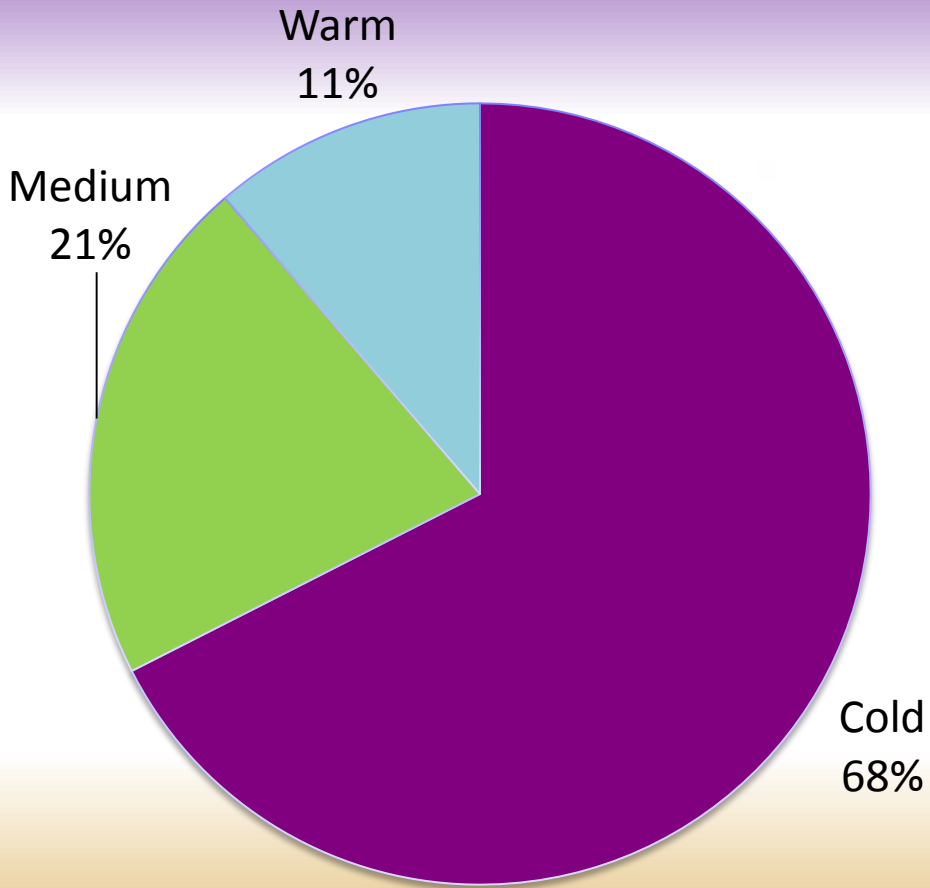
# Time to Fill



Speed	# Fountains
Fast (desirable)	254
Medium (less desirable)	18
Slow (undesirable)	2



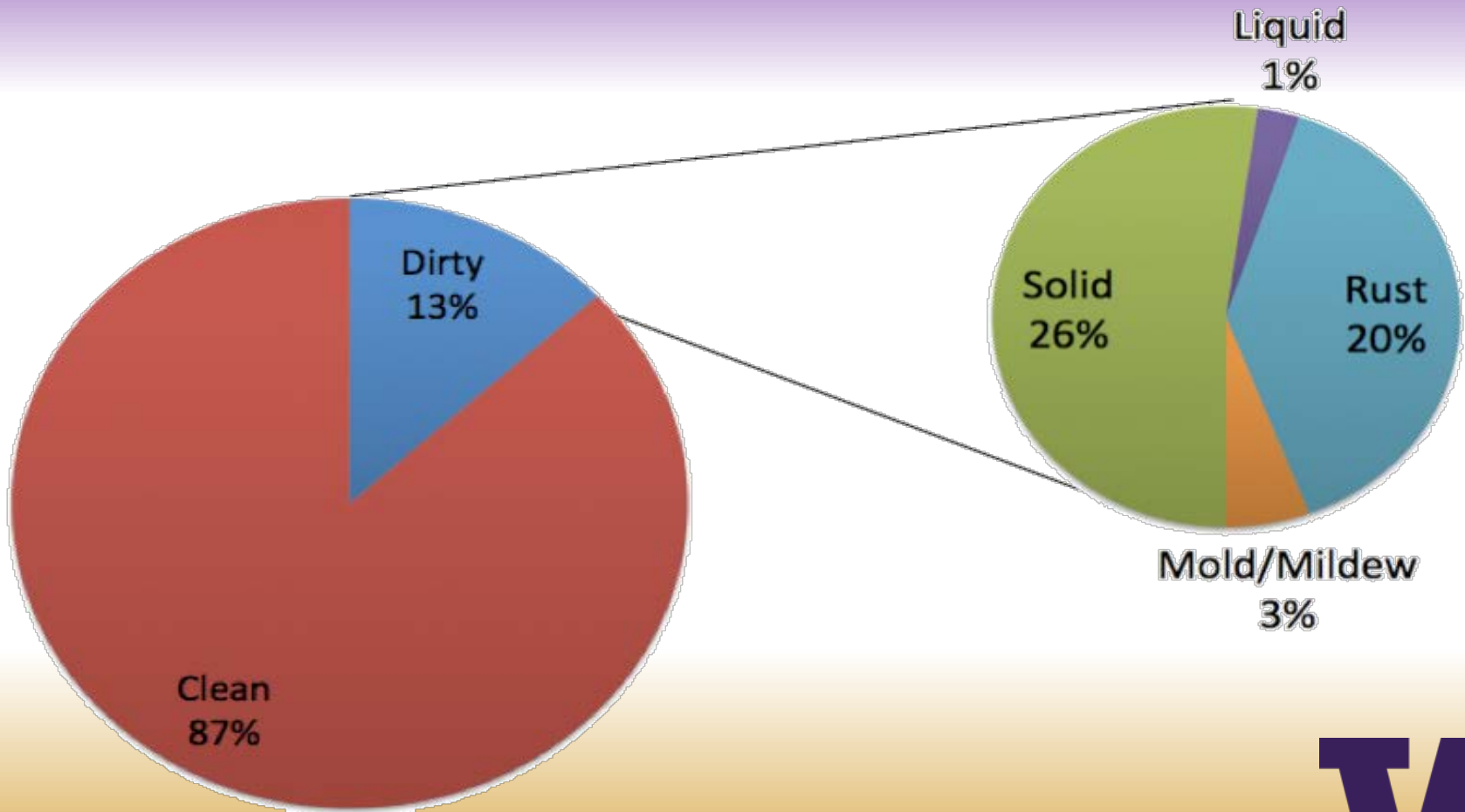
# Water Temperature



Temperature	# Fountains
Cold (desirable)	185
Medium (less desirable)	58
Warm (undesirable)	31



# Breakdown of Dirty Fountains



# Policy Review

- **Existing policies**
- **Policy opportunities**





# Existing Drinking Water Policies Relevant to UW

## Federal

- Occupational Safety & Health Admin
- National Sanitation Foundation

## State

- WAC 246-290
- WAC 51-50-2900

## UW

- Green Cleaning Policy



# WA State Drinking Fountain Policy

- **> 30 Occupants:**

- *first 150 occupants: 1 drinking fountain*
- *1 fountain for each additional 500 occupants*

- **Sporting facilities:**

- *1 drinking fountain for each 1000 occupants.*

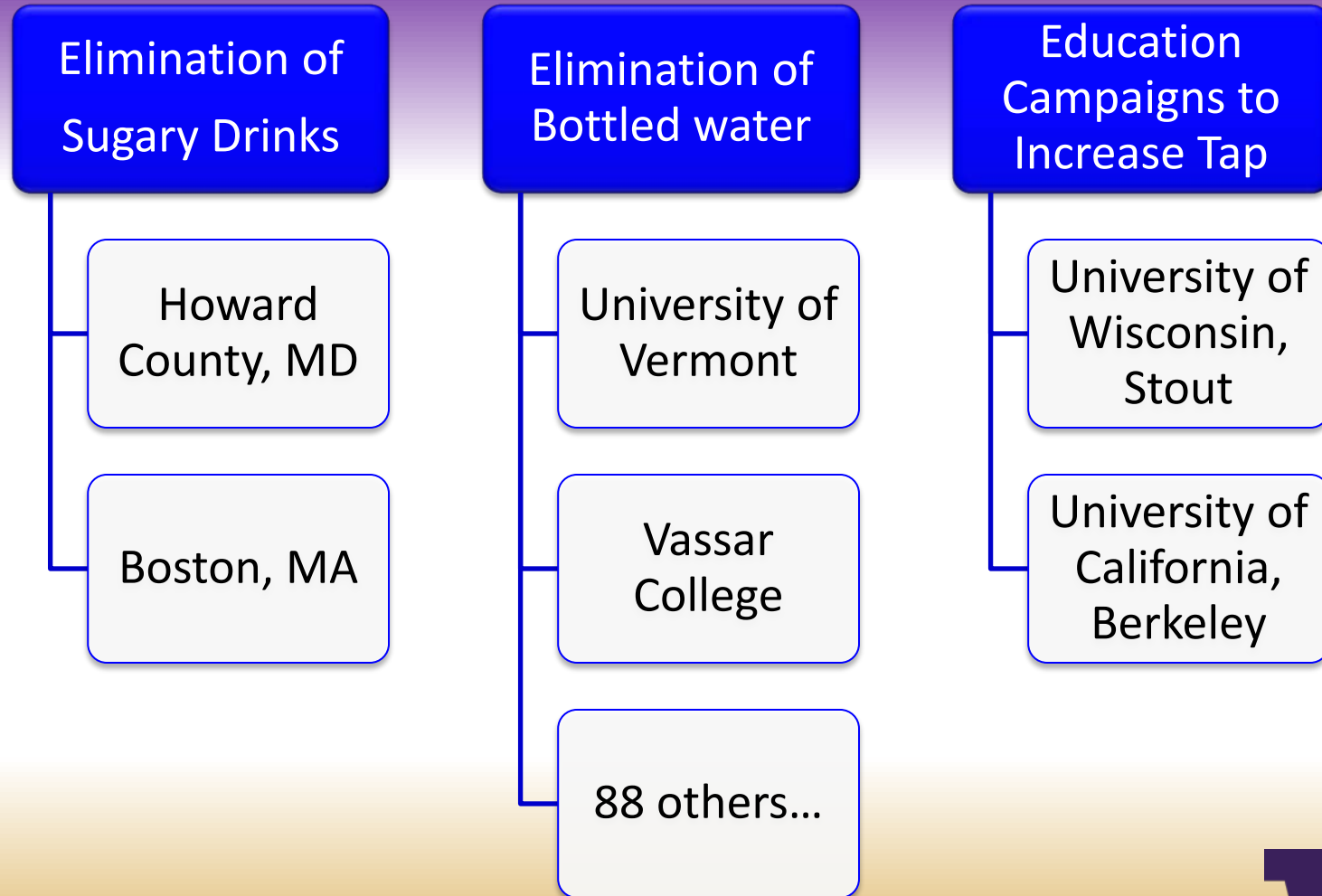


# Campus Building Services Policy

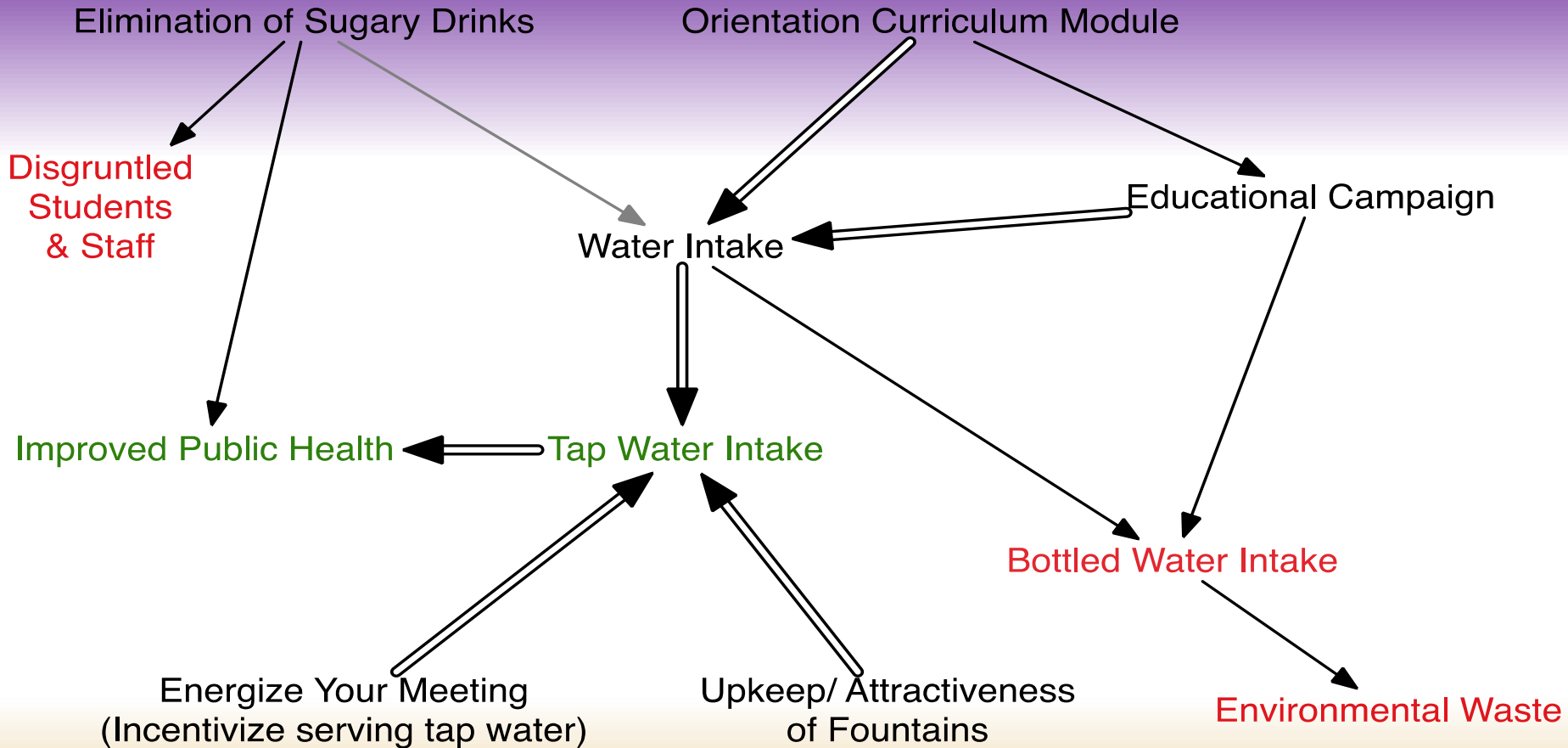
- **Clean and sanitary fountains**
- **Problems:**
  - *Budget*
  - *Campus size*
  - *Number of custodians*



# Water Promotion Policy Leaders



# Rationale for Policy Recommendations



# Policy Recommendations

- **Create new Freshmen Orientation module**
- **Adopt healthy food and beverage guidelines for meetings on campus**
- **Enforce existing fountain maintenance policy**
- **Marketing campaign**

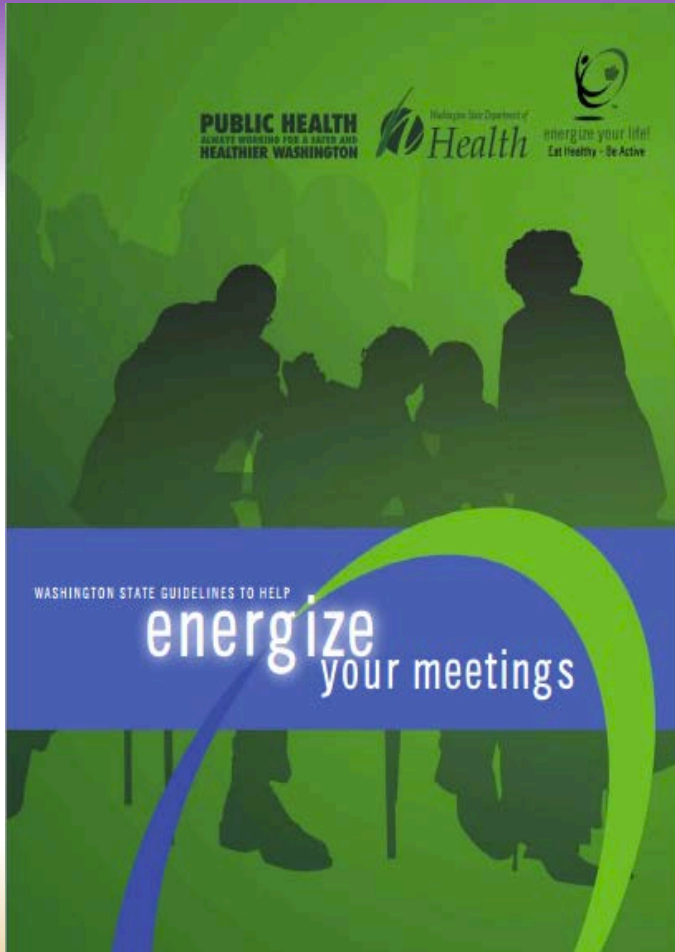


# Freshmen Orientation Module

- Current curriculum: Health and Wellness session
- Policy recommendation: Add 30-min module to include research on sugary drinks
  - Discuss benefits of drinking tap water
  - Provide refillable bottle and map of fountains



# Adopt healthy food and beverage guidelines for meetings at UW



- Specify tap water to be provided at meetings





# Enforce Existing Fountain Maintenance Policy

- **Existing policy:** fountains to be cleaned daily
- **Reality:** cuts to higher education = greater demand on cleaning staff
- Daily cleaning overlooked
- Visual appeal important for fountain use



# Marketing Campaign: Promote Campus-Wide Tap Usage

**I**  **TAP WATER**



**W**

# Marketing Campaign: Audience

- **Students**
  - *Primary Audience*
    - Most affected by the problem
    - Most likely to change their behavior
    - Most feasible to reach
    - Contemplation stage → ready to change
- **Faculty, facilities and maintenance staff**
  - *Secondary Audience*



# Marketing Campaign: Audience

- **Aspirations of Students**

- *Improve academic performance*
- *Maintain health*
- *Minimize weight gain*
- *Reduce debt*



- **How to get them to change?**

- *Competing behaviors against which you can “win”*



# Marketing Campaign: Outreach

## Information channels used

- *Posters (shocking=most effective)*
- *Peers, word of mouth*
- *Freshmen Orientation*

## Specific activity

- *Poster campaign*
- *Free, refillable water bottles*
- *More water bottle fillers*



# Previously Developed Tap Water Campaigns

- **Are You Pouring on the Pounds**
  - *New York City*
- **I Love Tap Water**
  - *University of Wisconsin-Stout*
- **I Love Tap Water**
  - *UC Berkeley*



# Are You Pouring on the Pounds? (New York City)

ARE YOU POURING ON THE POUNDS?



You're drinking  
**85** PACKETS OF  
**SUGAR**  
in just 4 sugary drinks a day.

20oz. Soda - 24oz. Medium Frozen Vanilla Coffee  
- 20oz. Fruit Punch - 23oz. Sweetened Tea

All those extra calories can bring on obesity, type 2 diabetes

**NYC** | Michael R. Bloomberg  
Mayor

can make you **10 pounds** fatter a year



You'd never **EAT 16** packs of sugar.

ARE YOU POURING ON THE POUNDS?



**DON'T DRINK YOURSELF FAT.**  
Cut back on soda and other sugary beverages.  
Go with water, seltzer or low-fat milk instead.

**NYC** | Michael R. Bloomberg  
Mayor



# I Love Tap Water

*(University of Wisconsin-Stout)*





# I Love Tap Water

*(University of California Berkeley)*

**ZERO**  
calories

**ZERO**  
sugar

tastes  
**GREAT**

**SAVES**  
**MONEY**

**I ♥ TAP WATER**

it's  
**GOOD**  
**FOR YOU**

**ECO**  
**FRIENDLY**

it's  
**GOOD**  
**FOR THE**  
**PLANET**

**SAFE** and  
**ACCESSIBLE**

take the  
**PLEDGE**  
today

**Cal**  
Dining

**Cal** Recreational  
Sports  
Sustains. Activates. For Life.

**UNIVERSITY**  
**HEALTH SERVICES**  
Tang Center



# Limitations of Assessment

- **Quality = Multi-factor measurements**
- **Important measures not assessed**
  - *Contaminants in water*
  - *Spatial access*
- **Slight intergroup differences in collecting the data**



# Conclusion

- **Purpose:**

- Evaluate access to drinking water
- Identify barriers to free water access
- Identify opportunities for policy

- **Findings:**

- 95% of fountains and bottle fillers were free of mold, mildew, odors, colors, and fluid waste



# Conclusion

- **Policy Opportunities at UW:**
  - Create new Freshmen Orientation module
  - Adopt healthy food and beverage guidelines for meetings on campus
  - Enforce existing fountain maintenance policy
  - Marketing campaign



# Questions And Discussion





**THANK YOU FOR  
ATTENDING!**

