


Hydrate for Health
A Call for Healthy Beverages in Health Care

"Health care professionals have an important role to play in shifting institutional practices to support health by not only educating our patients and modeling healthy behaviors, but also in advocating for changes within our environment that will support the transition to healthy habits and a healthier lifestyle."

Health Care Without Harm



Presentation overview

1. The Issue: Obesity, Chronic Disease, and the Cost to the Community
2. Sugar Sweetened Beverages (SSB)
3. The Role of Healthcare
4. Healthy Beverage Program
5. Hospitals are Leading the Way

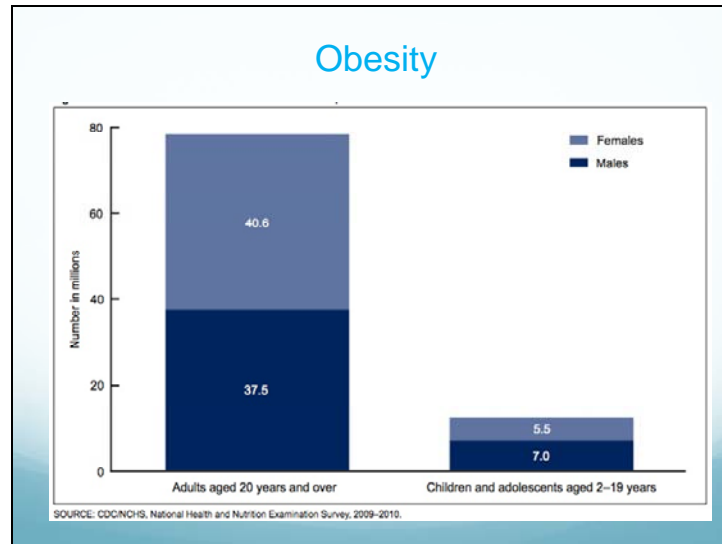
1. The Issue

The way in which our food is produced, marketed, and delivered has contributed to nation-wide diet-related health problems and environmental problems.

- Obesity
- Diabetes
- Food packaging waste
- Environmentally unsustainable agricultural practices.

Our current food system, from the way it is produced, marketed, and delivered, has created a public and environmental health crisis that has manifested in increased prevalence of diet-related disease and environmental problems such as increased wasted and unsustainable agricultural practices.

Slide 4

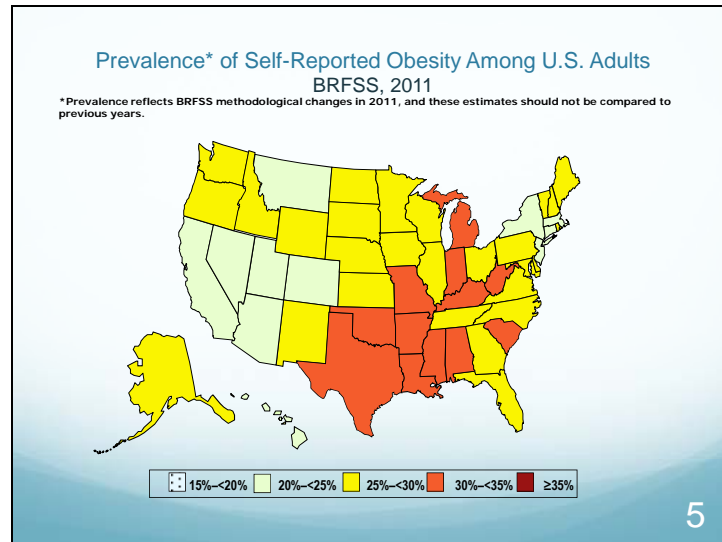


During the past 20 years, there has been a dramatic increase in obesity in the United States and rates remain high. More than one-third of U.S. adults (35.7% or over 78 million) and approximately 17% (or 12.5 million) of children and adolescents aged 2–19 years are obese.

This figure shows Almost 41 million women and more than 37 million men aged 20 and over were obese in 2009–2010. Among children and adolescents aged 2–19, more than 5 million girls and approximately 7 million boys were obese.

CDC National Center for Health Statistics, Data Brief No. 82 January 2012

Slide 5

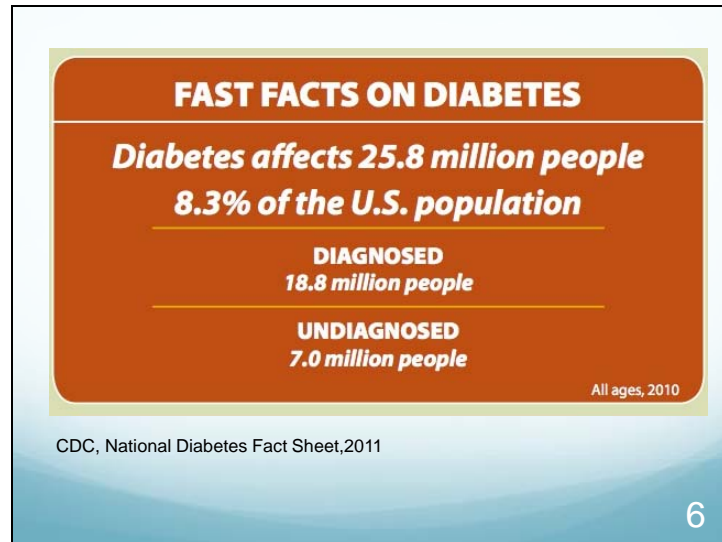


Obesity prevalence in 2011 varies across states and regions.

- By state, obesity prevalence ranged from 20.7% in Colorado to 34.9% in Mississippi in 2011. No state had a prevalence of obesity less than 20%. 39 states had a prevalence of 25% or more; 12 of these states had a prevalence of 30% or more: Alabama, Arkansas, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Oklahoma, South Carolina, Texas, and West Virginia.
- The South had the highest prevalence of obesity (29.5%), followed by the Midwest (29.0%), the Northeast (25.3%) and the West (24.3%).

http://www.cdc.gov/obesity/downloads/DNPAO_State_Obesity_Prevalence_Map_2011_508.pdf

<http://www.cdc.gov/obesity/data/adult.html#Prevalence>

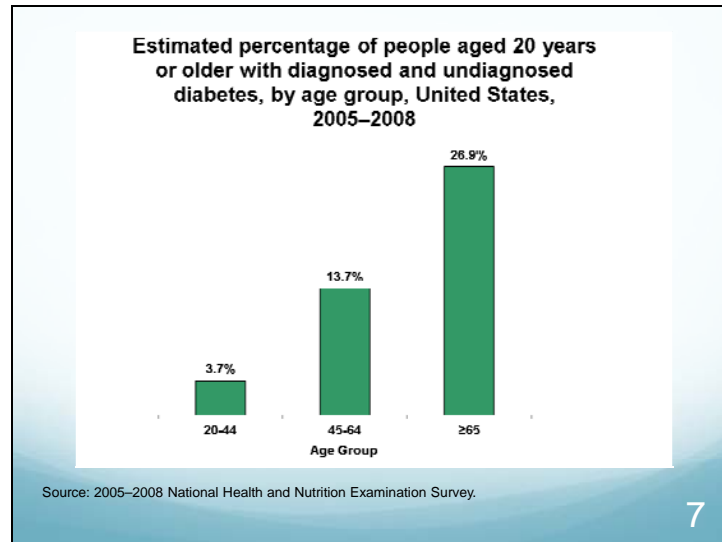


Nearly 26 million Americans have diabetes, according to new estimates from the Centers for Disease Control and Prevention (CDC). In addition, an estimated 79 million U.S. adults have prediabetes, a condition in which blood sugar levels are higher than normal, but not high enough to be diagnosed as diabetes. Prediabetes raises a person's risk of type 2 diabetes, heart disease and stroke.

Diabetes affects 8.3 percent of Americans of all ages, and 11.3 percent of adults aged 20 and older. About 27 percent of those with diabetes—7 million Americans—do not know they have the disease. Prediabetes affects 35 percent of adults aged 20 and older.

Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.

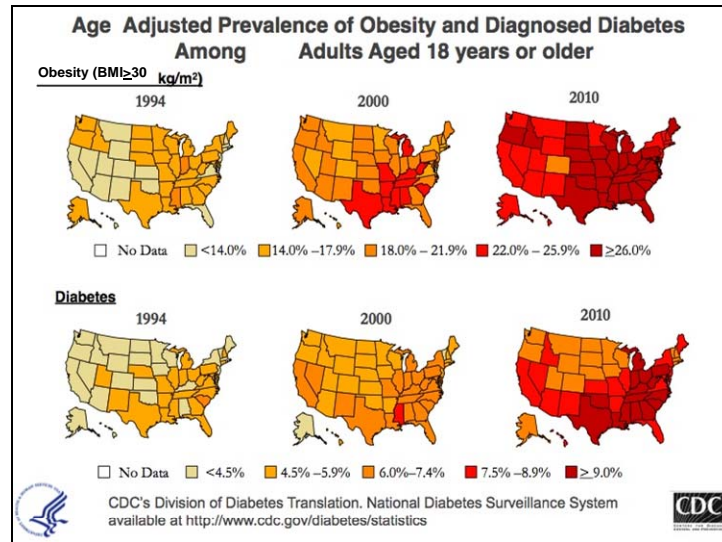
Slide 7



This slide shows diabetes diagnosis by age group.

Source: Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.

Slide 8



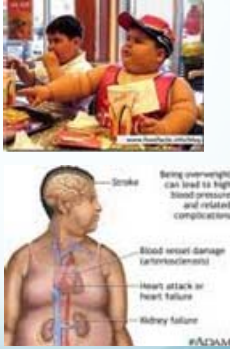
This figure from the CDC shows the growth rate of obesity incidences paralleling the rate of increase of diabetes over a 16 year period from 1994-2010.

Maps of Diagnosed Diabetes and Obesity in 1994, 2000, and 2010 November 2011
CDC's Division of Diabetes Translation, National Diabetes Surveillance System available at
<http://www.cdc.gov/diabetes/statistics>

Direct link: http://www.cdc.gov/diabetes/statistics/slides/maps_diabetesobesity94.pdf

Cost of Obesity & Diabetes

- The health cost of obesity in the United States is as high as **\$190 billion** annually
- Medical costs for people who are obese are **\$1,429 to \$2741 higher** than those of normal weight
- Over a lifetime per-person medical costs are roughly **\$9,000 to \$17,000 higher compared** to normal-weight adults.
- Medical costs of **diabetes** are estimated to be **\$116 billion** annually.



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The need for reform of current practices within the health care environment is forth coming. Our economic landscape is evermore challenging with increasing cuts to federal reimbursement rates health care institutions need to look to innovative and strategic methods to reduce costs and support a healthier society through a prevention- based approach.

The health cost of obesity in the United States is as high as \$190 billion annually or 21% of medical spending. (1)

Finkelstein and colleagues found that in 2006, per capita medical spending for obese individuals was an additional \$1,429 (42 percent higher) compared to individuals of normal weight. (2) Cawley and Meyerhoefer, meanwhile, found that per capita medical spending was \$2,741 higher for obese individuals than for individuals who were not obese—a 150 percent increase. (1)

Thompson and colleagues concluded that, over the course of a lifetime, per-person costs for obesity were similar to those for smoking. (3) In middle-age men, treatment of five common obesity-related conditions (stroke, coronary artery disease, diabetes, hypertension, and elevated cholesterol) resulted in roughly \$9,000 to \$17,000 higher costs compared to normal-weight adults.

- Cawley J, Meyerhoefer C. The medical care costs of obesity: an instrumental variables approach. *J Health Econ.* 2012; 31:219-30.
- Finkelstein EA, Trogon JG, Cohen JW, Dietz W. Annual medical spending attributable to obesity: payer- and service-specific estimates. *Health Aff (Millwood).* 2009; 28:w822–31.
- Thompson D, Edelsberg J, Colditz GA, Bird AP, Oster G. Lifetime health and economic consequences of obesity. *Arch Intern Med.* 1999; 159:2177–83.

The most recent reported medical costs of diabetes were \$116 billion.

DIRECT AND INDIRECT COSTS OF DIABETES IN THE UNITED STATES. American Diabetes Association. January 2008

<http://www.hsph.harvard.edu/obesity-prevention-source/obesity-consequences/economic/>

What Causes Overweight/Obesity?
A Toxic Environment for Healthy Behaviors

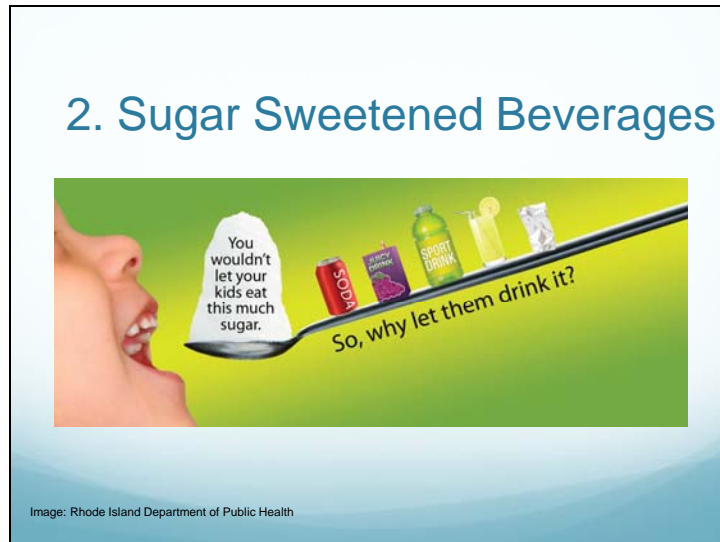
“It is unreasonable to expect that people will change their behavior *easily* when so many forces in the social, cultural, and physical environment conspire against such change”

- Institute of Medicine



So what causes obesity? We live in a world where powerful and continuous marketing encourages us to consume unhealthy foods. Essentially our culture glorifies unhealthy choices, and if we are to shift negative health trends in a positive direction we must examine our food environments and what they promote.

Slide 11



Sugar Sweetened Beverages

Image Rhode Island Department of Public Health

<http://www.health.ri.gov/healthrisks/sugarsweetenedbeverages/index.php>

What are SSBs?

Beverages with added caloric sweeteners

- Sucrose (sugar), high fructose corn syrup, glucose, etc.

Examples

- Sugar Sweetened sodas – e.g., Coke, Pepsi, Mountain Dew
- Sports or energy drinks – e.g., Gatorade, Red Bull
- “Fruit” punches – e.g., Sunny D, Kool Aid
- Coffee and tea drinks – e.g., Frappucino, Chai mixes
- Sweetened milk or milk alternatives

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Sugar Sweetened Beverages or SSBs are beverages with added caloric sweeteners. This includes sodas/pop, sports drinks, energy drinks, fruit punches, sweetened coffee and tea drinks, and sweetened dairy milk or dairy milk alternatives.

Role of SSBs in Weight Gain

Large Amounts of Added Sugar

- Added sugar comprises 16% of overall daily calorie intake
- SSBs account for half of this sugar intake

Increasing Consumption Over Time

- More people consuming SSBs
 - 250-300kcal overall kcal/day, half due to SSB
 - Adolescents now obtain 10 percent to 15 percent of their caloric intake from SSBs.
 - 63% of adults, 80% of youth consume an SSB daily
- Increased portion size
 - 20oz soda = 16 tsp sugar and 250 kcal (can equal 26 lbs if consumed daily)

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As a nation we are consuming more added sugar than we used to, and SSBs account for half of our added sugar intake. This is due to increased portion sizes and increased availability and variety of SSBs. On average 63% of adults and 80% of teens/children consume an SSB daily.

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*, March 2006, 117(3): 673-680.

Recommendations
American Heart Association

Over the past 30 years, total calorie intake has increased by an average of 150 to 300 calories per day; approximately 50% of this increase comes from liquid calories (primarily sugar-sweetened beverages)

RECOMMENDATION

Most American women should eat or drink no more than 100 calories per day from added sugars, and most American men should eat or drink no more than 150 calories per day from added sugars
(Circulation, 2009)

MAXIMUM Daily
Recommendations for
Added Sugar

Women – 6 teaspoons
Men – 9 teaspoons
Teens – 8 teaspoons
Children – 3 teaspoons

20 oz of Gatorade = 9 tsp
12 oz of Coke = 10 tsp
6 oz of Capri Sun = 4 tsp

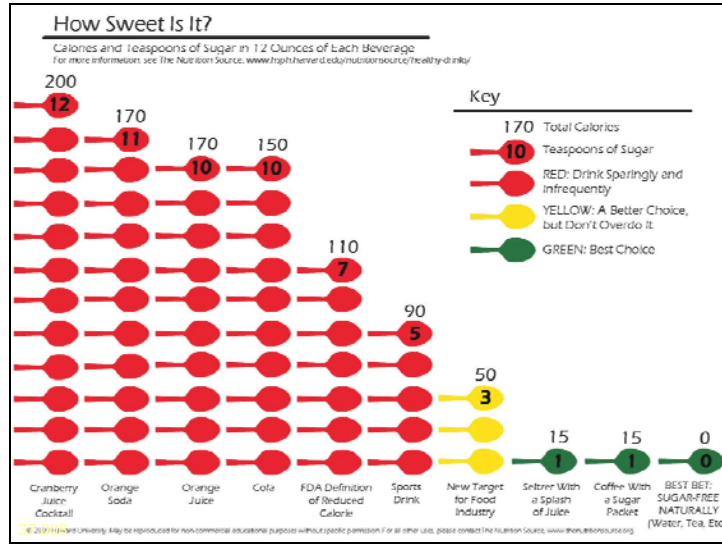
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Calorie intake has also increased over the past 30 years by an average of 150-300 calories per day. Approximately **50%** of this increase comes from liquid calories (primarily sugar-sweetened beverages). This slide shows the recommendations for maximum added sugar in the diet – 6 tbs for women, 9 for men, 8 for teens, and 3 for children. On the next slide we'll see the average amount of sugar in common SSBs. You'll note that many of them contain more sugar than the recommended maximum for all groups.

AHA Scientific Statement Dietary Sugars Intake and Cardiovascular Health A Scientific Statement From the American Heart Association Rachel K. Johnson, PhD, MPH, RD, Chair; Lawrence J. Appel, MD, MPH, FAHA; Michael Brands, PhD, FAHA; Barbara V. Howard, PhD, FAHA; Michael Lefevre, PhD, FAHA; Robert H. Lustig, MD; Frank Sacks, MD, FAHA; Lyn M. Steffen, PhD, MPH, RD, FAHA; Judith Wylie-Rosett, EdD, RD; on behalf of the American Heart Association Nutrition Committee of the Council on Nutrition, Physical Activity, and Metabolism and the Council on Epidemiology and Prevention

Direct link: <http://circ.ahajournals.org/content/120/11/1011.full>

Slide 15



This slide shows the amount of sugar and calories typically found in various SSBs. Notice that Cranberry Juice cocktail, which many could mistake as a healthy choice, has the highest calories and has the most sugar.

Also notice the color-coded red, yellow, green theme in this slide which is a common visual used in healthy beverage campaigns to quickly indicate healthy and unhealthy beverages to consumers.

Harvard University, 2009

<http://www.hsph.harvard.edu/nutritionsource/files/how-sweet-is-it-color.pdf>

Cost of Processed Foods

High Fructose Corn Syrup (HFCS)

- Consumption of fructose has been linked to obesity and insulin resistance
Bray, G., Nielsen, S., & Popkin, B. (2004). Consumption of high-fructose corn syrup in beverages may play a role in the epidemic of obesity. *American Journal of Clinical Nutrition*, 79(4), 537-43.
- Detectable levels of mercury from use in production of HFCS
Dufault, R., et al. (2009). Mercury from chlor-alkali plants: measured concentrations in food product sugar. *Environmental Health* 8, 2.
- Massive amounts of chemical fertilizers and pesticides are used to grow corn in the United States.

By reducing consumption of beverages sweetened with HFCS, there is a subsequent reduction of the impact that production of this sweetener has on our health and the environment.

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The foods we find the cheapest and most readily available are those that are highly processed but contribute an high social cost recognized in poor health from consumption of these products as well as a result of the fall out of the production and processing of the ingredients.

One of the most commonly found ingredients in processed foods, and specific to sugar-sweetened beverages is High Fructose Corn Syrup. Numerous bodies of research have particularly called out fructose as a unique contributor to obesity and insulin resistance,.. The precursor to Diabetes.

Another potential health concern associated with HFCS is the use of mercury in its production. Mercury cell chlor-alkali products are used to produce thousands of other processed food products including HFCS. Mercury levels found in HFCS with respect to average daily consumption of the product may be of toxic load of risk for children and sensitive populations a concern that could easily be eliminated with choosing or promoting a less processed and more healthful option.

In addition to this, to maintain the large production of HFCS needed for the US's high consumption of SSBs and processed foods, a tremendous amount of unsustainable resources are used to produce the product.

Between 2000 and 2010 an average of 2.55 million acres of corn, roughly two and half times the size of the state of Rhode Island, were grown **each year** just to produce HFCS.

Atrazine, a commonly used herbicide used in the U.S., is used extensively in corn production. Over 65 million pounds of atrazine are applied to corn crops each year with potentially 2.85 million pounds used on acres dedicated to HFCS alone. Studies show widespread contamination from atrazine in watersheds and drinking water throughout the U.S., with highest levels in corn-producing areas.

In humans whose drinking water is contaminated with atrazine, some evidence finds that it interferes with fetal growth and development.^{30, 31} Currently banned in the European Union, atrazine and its risks to human health are under review by the U.S. EPA.

As healthcare providers, we must look at the bigger picture of health in relation to our food and beverage choices, and recognize that SSBs not only have a direct effect on diet-related diseases, but affect public and environmental health in the way that they are produced.

By reducing consumption of SSBs there is a subsequent reduction of the impact that production of this sweetener has on our health and the environment.

Cost to the Community:
Bottle Waste

- Single-serving packaging generates significant waste and disposal costs
- Polyethylene terephthalate (PET) bottles are accepted by most municipal recycling programs yet each year in the U.S., **only 23% are actually recycled**
- **Six times** as much water is used in the production of bottled water as actually ends up inside the bottles



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Another public and environmental health consideration in regards to SSBs is waste generation. Although SSB containers are generally recyclable only 23% are actually recycled and 2 million tons end up in landfills each year.

Furthermore, 17 million barrels of oil are consumed annually in the production of plastic bottles enough to run 1 million cars for a whole year. . Reducing our use of plastic bottles conserves this resource and would reduce the monetary and environmental costs of bottle disposal.

Source: Hydrate for Health,
http://www.noharm.org/lib/downloads/food/Hydrate_For_Health.pdf

3. The Role of Healthcare



So how can we, as healthcare providers effect change in this public and environmental health issue?

Why should the healthcare sector take a stand on SSBs?

- **Primary prevention part of mission**
 - ⦿ As places of healing, hospitals have a natural incentive to provide food and beverages that are healthy for people and the environment in which we live.
- **Position to influence behavior**
 - ⦿ Respected sources of health information
 - ⦿ See patients and visitors at key time
 - ⦿ Hospitals bear burden of chronic disease
- **Position to influence local markets, distribution networks, national food distributors**
 - ⦿ Health care food service: \$12 billion market in U.S

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The promotion of health is central to our mission


Hospitals as institutions are respected sources of health information and can have a great impact in modeling healthy food and beverage habits.

As major purchasers we can shift the market towards healthier offerings.

What should Hospitals be Promoting?

Healthy Beverages

- Nutritious
- Hydrating
- Low environmental impact
- Supportive of community health
- In-line with hospital mission to promote health



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The image contains two photographs. The top photograph shows a stainless steel water fountain with a single tap and a cup being filled. The bottom photograph shows a display of organic milk cartons, with several brands visible, including 'Organic Valley' and 'Newman's Own'.

What should we promote? Healthy beverages which have positive impacts on public health and the environment, and that are consistent with our mission to promote health.

Overlake Hospital in Washington State ([viewed here](#)) shows an example of their beverage specifications that include organic milk.

What does healthy mean to you?

Creating Healthy Beverage Environment Program Specifications

- Naturally Sweetened Beverages
 - Limiting portions
- Concern with Artificially Sweetened Beverages
 - Emerging research on link to increased calorie consumption
- Tap Water
 - Increased education and awareness
 - Bottled water can cost up to 4,000 times more than tap water
- Beverage Waste Reduction
 - Reducing secondary impact to the community from increased bottled beverage usage

Hydrate for Health: A Call for Healthy Beverages in Health Care

Hydrate can play an important role in the medical health outcomes of the communities they serve. With their substantial purchasing power, hospitals can have a significant impact on market trends to support overall health. Despite the change to “less is more” mantra, most facilities serve high-calorie, nutrient-poor food and beverages on patient trays, in cafeteria, and in vending machines. This document reviews the negative health and environmental impacts associated with major beverage categories, presents, and the opportunities for hospitals to make a positive role in promoting healthier options for their patients, staff and the community—both for health.

Many beverages provide a significant calorie contribution to a total diet and have been implicated in the development of health issues such as the rapid gain of weight. Sugar-sweetened beverages (SSBs) contribute to the increased prevalence of obesity and associated chronic disease that goes along with weight gain. The document

Promoting human and environmental health by encouraging healthy beverage selections

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Healthy beverages are water, preferably tap, naturally sweetened beverages with careful attention given to portion size, and artificially sweetened beverages. However there is research showing consumption of diet/artificially sweetened beverages leads to the development of a “sweet tooth” and increased calorie consumption in other areas of the diet.

In our healthy beverage program we consider the broader vision of health by promoting tap water and bulk beverage service. Tap water is generally clean and healthy in the US and has stricter quality standards than bottled water. The idea that bottled water is somehow cleaner than tap is a myth perpetuated by marketing. Not only is bottled water no cleaner than tap, but it has environmental impacts in the form of the bottle waste, and in the form of the oil consumed in its production and shipping of full and waste bottles. Ironically, six times as much water is used in the production of bottled water as actually ends up inside the bottles.

Tap water is promoted in the hospital through increased access and by providing “spa water” or infused water stations. Bulk tea, coffee, and 100% juice can be provided through dispensing stations.



Culture Transformation

As Health Care Institutions,...

- Provide anticipatory guidance** to patients and families about the importance of healthy foods and beverage purchasing practices to support individual and community health.
- Work within health care facilities** to create a healthy food and beverage procurement and service model that is recognized as integral to a preventive health agenda.
- Work within the community** at a local, regional and national level to promote policies that support the development of an accessible, healthy, and fair food system.

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Healthcare institutions have the ability to shift the culture towards more healthy food and beverage choices. This culture transformation happens via doctor/patient interactions, by creating an environment within our facility where healthy options are the default choice, and by promoting policies that support the development of a healthy, accessible, and fair food system.

Our beverage program will be fully integrated into all areas of our food service and our messaging campaign will reach to all populations throughout the hospital: clinicians, employees, patients, and visitors so that an internal culture shift can begin.

By modeling healthy behaviors in our facility and by using our purchasing dollars to signal the market place in favor of healthy and sustainable options, we can transform the larger culture thereby reducing diet-related disease and positively impacting the environment towards a more sustainable system of food production.

For more information and links to webinars, videos, and print resources, go to <http://www.healthyfoodinhealthcare.org/foodmatters.overview.php>

Hospital Internal Food Purchases Influence the Health of Patients, Staff and the Local & Global Communities

Retaining Employees and Improving Morale. According to the 2008 Society for Human Resource Management *Green Workplace Survey Brief* (www.shrm.org): "Companies that implement environmentally responsible programs cite improved employee morale, a stronger public image and a positive financial bottom line among other things."



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What we purchase as an institution, and what we offer to our patients, employees, and visitors can shape the marketplace and shape the culture of food choice.

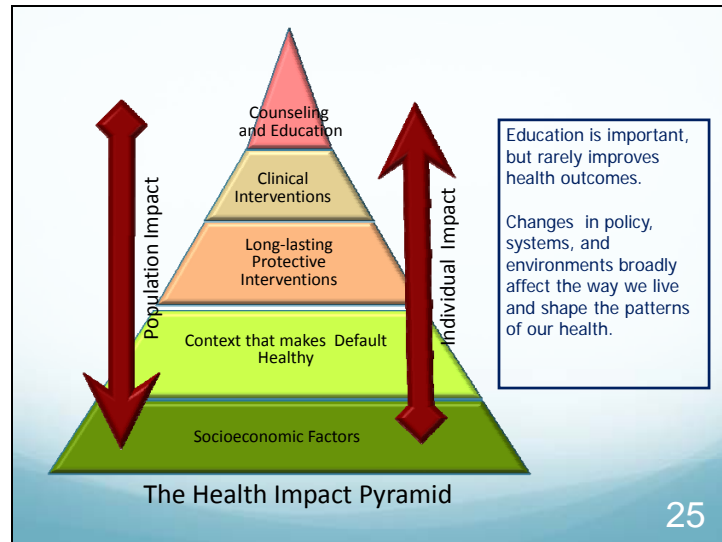
Slide 24

4. Healthy Beverage Program:
Creating Healthy Choice Environments

A young girl with dark hair in a bun, wearing a purple long-sleeved shirt and a brown fur vest, is holding a whole orange. She is looking directly at the camera with a neutral expression. The background is a plain, light-colored wall.

Image: Boston Public Health Commission

Image, Boston Public Health Commission



Decades of research tell us that education is important but it, alone, is rarely enough to improve health.

Changes in policy, systems and environments are much more effective in the long run to improve health outcomes.

For this initiative, we are striving for the greatest impact, focusing toward the bottom of the pyramid where we make changes in the context where individuals can better make the healthy choice.

JS1

Steps to Implementing a Healthy Beverage Program

1. Create Healthy Beverage Task Force
2. Establish Baseline Beverage Practices
3. Formulate Healthy Beverage Program
4. Make the Program Sustainable: Craft the Policy
5. Propose the Healthy Beverage Policy to Senior Management and Key Stakeholders
6. Educate Staff, Visitors, and Stakeholders
7. Implement the Program and Policy
8. Track Progress
9. Maintain Momentum and Healthy Profits
10. Celebrate Your Success



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These are the basic steps in implementing a Healthy Beverage Program.

First establish a **Healthy Beverage Committee**

The Committee oversees formation and implementation of the policy, Establishes strategies to be outlined in the policy for increasing Healthy Beverage offerings in the five food service areas, retail (cafeteria), vending, catering, patient services, and onsite contract venues.

Participants may include: Food and Nutrition Services, Purchasing, Upper Management (Financial, VP), Employee Health / Human Resources, Other Stakeholders

Next the committee conducts a **Baseline Audit of the beverage landscape:**

- ☑ Establishing Current Purchasing Practices,
- ☑ Includes a survey of public drinking water access,
- ☑ Investigates current policies, and
- ☑ Reviews current food and beverage contracts and financial relationships

After the baseline data is collected the committee will formulate the policy which I will go into a bit more detail on in the next few slides.

A marketing and education campaign will be conducted before and during the roll out of the program.

GOAL: Healthy Beverage Policy

- Outlines the scope of the program and provides implementation guidelines and strategies
- Guides purchasing decisions and contract negotiations with vendors
- Ensures that program will continue regardless of staffing changes

Policy:

Fairview Hospital Sugar-Sweetened Beverage Sales Elimination Policy

More than half of Americans are overweight including at least 1 in 7 children and nearly one third are obese. Each year approximately \$42 billion is spent on treating the diseases associated with obesity. Behavioral eating habits are largely influenced by accessibility, cost, convenience and taste. In our daily environment, the places of eating, hospitals should be the ones to set an example of a health promoting facility. One of the first steps to providing such an environment is to promote healthy beverages.

POLICY
An effort to eliminate the availability and accessibility of sugar sweetened beverages (SSB) in hospitals to ensure a healthy environment for patients, staff and visitors. Purchases of SSBs will end on February 2015.

II. PURPOSE
To provide guidelines for purchasing activities to eliminate SSB's and/or carbonated beverages in the hospital environment.

III. SCOPE

A. Responsibilities

1. Purchasing Department
In an effort to eliminate SSB's, personnel involved in purchasing decisions shall adhere to the guidelines set forth in this policy when making purchasing decisions. The department will participate in establishing goals to eliminate SSB's in all four areas (patient rooms, catering, vending and cafeteria).

2. Food Service Director
The Food Service Director will track SSB sales or purchasing data as appropriate to track trends and inform the Wellness Committee. Sending out memos is one way to make sure everyone is well informed.

3. Department Managers that Cook
The individuals in the various departments including central kitchen, clinical staff, facilities and other departments that cook will participate in the Food Service Director or implement the policy and to develop effective employee communication and to implement this policy.

B. Exceptions
SSB's will not be available on menus, however, they can be obtained in special circumstances or upon patient request. These situations may include: recommendation from physician, prescription and parent/child.

C. Personal Choice
Employees and visitors will continue to have personal choice of any beverages they choose to purchase.

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A Healthy Beverage Policy is a key step in a Healthy Beverage program. The policy will solidify the program ensuring that it will continue even when staff members change.

JS1

Healthy Profits

Marketing works!

- Well run education campaigns can generate interest in purchasing healthy beverages.

Customers want it!

- Beverage industry itself notes an increasing proportion of beverage profits from water, 100% juice, and beverages other than SSBs.

Healthier Employees!

- Reduction in availability of sugar- sweetened beverages improves the health of employees, decreasing costs to employers in the form of lost productivity and health care expenditures.

Fairview Hospital in Great Barrington, MA saw **no noticeable change in sales revenue** after eliminating SSBs from its facility.

After **St. Elizabeth's Hospital** implemented its SSB reduction program "Red" beverage sales dropped 54% and "Green" beverage sales jumped over 30% with an **increase in overall sales** compared to the previous year.

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We want to roll out this program acknowledging the impact it will have on revenue in our food service operations. Other hospitals that have implemented healthy beverage programs have noticed an initial decrease in beverage sales and then a rebound once customers have become accustomed to their new choices.

Its also important to note that reductions in cafeteria revenue are also offset by improved health and decreasing healthcare costs of employees.

Through our healthy beverage program we can improve the health of our employees and therefore save money on employee healthcare costs.

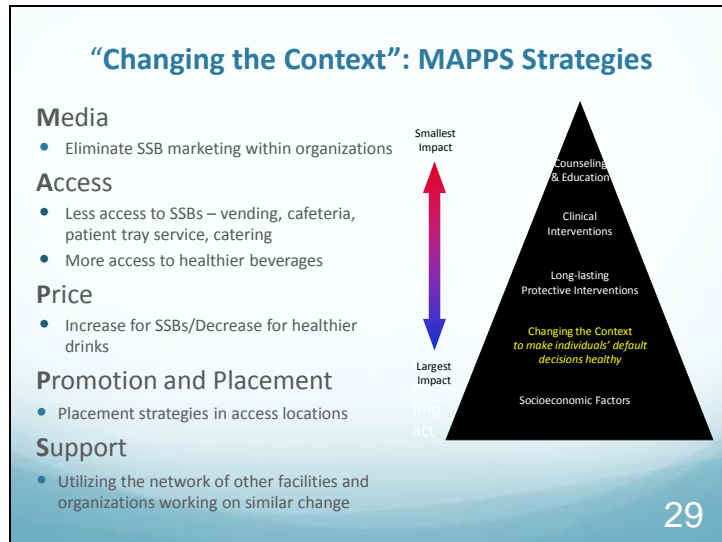
A 2011 study by Thomson Reuters analyzed the health risk and healthcare utilization of 1.1 million hospital workers and their dependents and compared them with 17.8 million health plan members in all industries for the year ending with the third quarter of 2010. It found that the average annual cost of healthcare for hospital employees and their dependents was \$4,662, outpacing the general population by \$538.

"Ideally, the healthcare workforce would be a model for healthy behaviors and the appropriate use of medical resources. Unfortunately, our data suggests that the opposite is true today. Hospitals that tackle this issue can strengthen their business performance and community

service.” said Raymond Fabius, MD, chief medical officer for the Healthcare business of Thomson Reuters.

The study concluded that that a hospital or health system with 16,000 employees stands to save an estimated \$1.5 million annually in medical and pharmacy costs for each 1 percent reduction in health risk.

http://thomsonreuters.com/content/press_room/healthcare/hospital_employees_less_healthy



The Center for Disease Control’s MAPPS strategies known as Media, Access, Price, Promotion, Placement and Support. Using all these different strategies to implement your food and beverage programs assist in building effective way of shifting the culture or changing the context for people to make healthier food and beverage choices. This pyramid is a visual of the amount of impact you can have by how you approach your program outreach. Yes, clinical interventions to obesity are important, but supporting changes to where people make these unhealthy choices impacts a greater number of people.

Educating Patients, Staff, and Visitors



Red: Stop and think!
Drink rarely, if at all.

Over 12g of sugar per 12 oz

"RED" beverages are high in sugar. Many also have high sodium and/or fat content. Red drinks contain "empty" calories, with little or no nutrients, and can contribute to weight gain and other chronic diseases like Type 2 diabetes and heart disease.

Examples:

- Regular soda
- Energy drinks
- Sports drinks
- Pre-mixed coffee and tea drinks
- Acid drinks with added sugar
- Whole or 2% milk

Yellow: A better choice.
Drink occasionally.

4 to 12g of sugar per 12 oz or contain 100% fruit juice

"YELLOW" beverages have moderate amounts of sugar and sodium, or contain artificial sweeteners. 100% fruit juice and flavored lowfat milk may have more than 12 grams (g) of sugar because they contain natural sugar, but may still be consumed in small portions of 4 oz or less because they contain important nutrients.

Diet and "light" drinks that are artificially sweetened may increase taste preferences for sweet foods and drinks, which contributes to weight gain. Diet drinks can be used as a way to switch from RED choices to GREEN choices.

Examples:

- Diet soda
- 100% fruit juice (in small portions)
- Low-calorie sports drinks
- Sweetened syrups (in small portions)
- Flavored 1% milk (in small portions)
- Other low-sugar drinks





Green: The healthiest choice!
Drink plenty.

0 to 5g of sugar per 12 oz

"GREEN" beverages have no added sugar and no artificial sweeteners. These are the healthiest choices, especially tap water. Water hydrates the body, quenches thirst, and supports other body functions necessary for overall health. Lowfat milk contains essential sugars and healthy nutrients. It should be consumed in portions that are 8 oz or less.

Examples:

- Water
- Better water
- 1% or skim milk (in small portions)
- Unsweetened soy milk (in small portions)



STOP. RETHINK YOUR DRINK. GO ON GREEN.

This is a sample of a brochure that can be used to educate patients, visitors and employees about healthy beverage options.

This red, yellow and green categorization has also been used effectively as a guideline for strategies for determining which beverages should be phased out and which ones should be promoted in the settings.

It has been used successfully by Healthy Beverages in Hospital Campaign, an initiative of the Boston Public Health Commission with support from American Heart Association, Public Health Law Center and Health Care Without Harm.

**“Point of Decision”
Signage**

**STOP. RETHINK YOUR DRINK.
GO ON GREEN.**

Red - Drink Rarely, If At All
• Regular sodas
• Energy or sports drinks
• Fruit drinks

Yellow - Drink Occasionally
• Diet sodas
• Low-calorie, low-sugar drinks
• 100% juice

Green - Drink Plenty
• Water
• Salt-free water
• Skim or 1% milk

<http://www.bphc.org/programs/cib/chronicdisease/healthybeverages/Pages/Home.aspx>

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The Boston Public Health Commission created and disseminated this educational tool that classified beverages into these three categories depending upon their attributes. Red: Stop drinking SSB , Yellow, limit consumption of , artificially sweetened beverages, 100% fruit juice, beverages with sugar 6-12 grams, Green, go ahead and drink such as water, milk. Many hospitals used this guide for their programs.

5. Hospitals Are Leading the Way!



Hospitals Leading Change

Massachusetts General Hospital

Study: Colored Labels Help Cafeteria-Goers Eat Healthier

Simple but effective: red, yellow and green labels on food help diners make better choices.

By ALICE PARK @aliceparky January 27, 2012

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Remember the grade-school game 'Red Light, Green Light'? You had to run across the playground until someone said 'red light,' and then you had to freeze, unable to move again until you heard 'green light.'



Nice idea, thought some researchers at Massachusetts General Hospital (MGH), would the same go-stop training manipulate the way people eat?

Source
Thordike AN, Sonnenberg L, Riis J, Barraclough S, Levy DE. A 2-phase labeling and choice architecture intervention to improve healthy food and beverage choices. *Am J Public Health*. 2012 Mar;102(3):527-33. Epub 2012 Jan 19.

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One of the Learning Network facilities, Massachusetts General Hospital published a paper in American Journal of Public Health this past spring outlining the effectiveness of utilizing a color coded educational strategy for shifting food and beverage choices. This study also looked at where the food and beverages were placed

Sugar Sweetened Beverage (SSB) Reduction Initiative

Carney Hospital
The "No Beverage" Case
Since March 2011

Norwood Hospital
47% Total Beverage
4% No Beverage
52% Low Beverage

Good Samaritan Medical Center
Oct 2011

Saint Anne's Hospital
Nov 2011

Steward's commitment to reducing SSBs has led other hospitals to follow suit, which ultimately will lead to healthier communities.

Low Beverage
Steward of Good Sugar Choices
Steward Health System

St. Elizabeth's Medical Center
A STURDIEUS CARE MEMBER

Since early 2011, Steward Health Care has served as a strategic partner of the Boston Public Health Commission in their ongoing Sugar Sweetened Beverage (SSB) reduction campaign, made possible by funding from the U.S. Centers for Disease Control and Prevention's National Center for Chronic Disease Prevention and Control (CDC). While our program is still in progress, we are in the process of expanding the program to our other facilities.

Many people don't realize how much sugar and how many calories are in common beverages. Sugar-sweetened beverages, like soda and flavored drinks, are now the largest source of added sugar in Americans' diets and can account for a large percentage of a person's daily energy intake. The SSB reduction program seeks to highlight the public health risk of over-consuming SSBs and to make healthier beverage consumption the easier choice.

At St. Elizabeth's, the following strategic changes implemented through our SSB reduction initiative have created a paradigm shift in our beverage offerings. With support from Boston Public Health Commission and Health Care Without Harm in the form of financial resources, technical assistance, and education materials, our efforts have included the removal of more than 20 varieties of sugar-sweetened beverages from vending and fountain drink machines in our cafeteria, the introduction of a color-coded beverage selection system to reduce consumption of unhealthy beverage choices, strategic product placement, and much more. The result has been more than a 40% reduction in SSBs and nearly a 40% increase in healthier beverage consumption. These changes have not only had an overwhelmingly positive impact on the health of our employees, patients, and visitors, but have also served as the catalyst for other hospital and community groups to launch similar SSB reduction initiatives.

As a time when health care costs and chronic disease rates continue to skyrocket both in Massachusetts and across the country, collaborative, prevention-based efforts, like those made possible by our partners, are critical to ensuring cost containment and health improvement in our communities, and Steward Health Care and (SPH) United Health Care Workers feel we are proud to partner in these efforts.

Steward Health System

Holy Family Hospital
25.0% Total Beverage
17.0% No Beverage

Merrimack Valley Hospital
Jan 2012

Nashoba Valley Medical Center
Jan 2012

Quincy Medical Center
Jan 2012

Morton Hospital
Jan 2012

I like my Coke but I believe it is a good choice that Steward is promoting. Sweetened beverages and substituting healthier drinks. It is important that we have good health so we can take good care of our patients.

Christine Adams
St. Elizabeth's Orthopedic Hospital and Orthopedic Center

**April 13, 2011:
Carney Hospital Bans Sugar-Sweetened Beverages**

Case Study available at www.healthyfoodinhealthcare.org

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Steward Health System had two facilities in the Boston Learning network that tried 2 different strategies. They choose to utilize the success from one of their facility's programs: St. Elizabeth's Medical Center to implement the strategy to all the other hospitals in the health system. St. Elizabeth's had effectively implemented the full range of MAPPS strategies to reduce their Red beverage offerings to less than 20% of all beverages purchased by the facility while increasing beverage sales. One of their hospitals, Carney Hospital eliminated SSBs completely.

The screenshot shows a webpage from FoodService Director. The header includes the site name 'FoodService Director' and a navigation menu with links for HOME, NEWS, EDITORS' BLOG, MENU, and PEOPLE. A sub-header reads 'FOODSERVICE IDEAS'. The main article title is 'Is It a Movement? Hospitals Ban Sugar Sweetened Beverages' by Katie Ayoub. A sub-headline states, 'Across the country, hospitals are taking SSBs off the menu—for patients and staff'. A small graphic on the right shows a glass of water with a straw and the text 'Health Care says NO to Sugar-Sweetened Beverages'. The article body contains a bulleted list of events: Michigan (2010 Michigan Hospital Association and HCWH conversation), Boston (April 2010 Boston Hospital Learning Network), Chicago (April 2012 Illinois Public Health Institute symposium), Philadelphia (June 2012 Einstein Medical Center symposium), National (July 2012 HCWH webinar), and National (HCWH Health Care Professional Pledge reaching 550 signatories). A page number '35' is visible in the bottom right corner of the screenshot.

Nationally, facilities have been tapping into the resources available through HHI as well as on HCWH's Food Program website. In addition to details listed here in the timeline, there is activity happening within schools, colleges, public health departments, independent organizations to support efforts to reduce SSBs. Health Care clinicians have been leading the charge in this arena. In February of 2012 HCWH initiated a health care clinician pledge to allow doctors, nurses, dietitians to show their support for efforts to transition to healthier beverage programs in their facilities. There is currently over 500 signatories to date that is available on our website as well.

Implementation Resources Available

- Tracking tools
 - [Healthy Beverage Audit Tool](#)
 - [Healthy Beverage Purchasing Tracking Tool](#)
 - [Sugar-Sweetened Beverage Purchasing Tracking Tool](#)
- Healthier Hospitals Initiative
 - Healthy Beverage Challenge
 - Reporting mechanism
- Case studies
- Educational and marketing materials

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There are many resources available to begin our beverage program so we won't have to start from scratch. These include tools for conducting a baseline audit of our beverages and tracking tools to monitor our progress once the program begins. We also have access to case studies of other hospital healthy beverage programs, and samples of educating and marketing materials that will help us to inform our community about our efforts.

Additionally the Healthier Hospitals Initiative is a resource for setting an overall beverage goal and provides a reporting tool that helps us to visualize our progress towards meeting our goals.