

***Policy Analysis of Standards for
Institutional Purchasing of Food by
State Government***

March 16, 2010

University of Washington

Washington State Food Procurement

Purpose of Analysis: To inform the advocacy decisions of the Washington State Coalition for Childhood Obesity and other interested parties regarding the idea of creating standards for institutional purchasing food by state government.

Major Findings

- The DOC, DSHS and DOC and other facilities including community colleges and food banks can purchase food using the Food Umbrella Contract which is managed by the state. Purchases are made directly between the individual facility and the contractor. Each facility may purchase whatever they need from any contractor within the contract.
- The only state limitation for the foods purchased is that the total cost must be within the food budget of the agency.
- Food purchased by each facility is limited by the DRI standard requirements used by the facility or by the agency. Nutritionists are consulted to approve the meal plans created by each facility
- The food purchased by each facility within each agency may be limited by different factors such as the cost of food, the desires of the people that are being fed and the ability of the staff hired to prepare the foods.

Recommendations

Recommendations consist of solutions from other entities involving the following tactics. Please see the full report for details on each tactic:

- Controlling Whom to Purchase From
- Controlling What is Purchased
- Controlling What is Served
- Incentivizing Pledges from Food Providers to State Agencies
- Controlling Nutrition Education and Labeling
- Devising Methods for Centralization of Purchasing
- Defining Healthy Foods

Acknowledgements

We would like to thank all contacts that took the time to answer our questions. Thank you all for your time, knowledge and input. We would particularly like to acknowledge Shannon McGuire and Jay Jackson who replied many times to a multitude of questions.

In addition, we would like to thank Vic Colman, Robbi Kay Norman and the Washington State Coalition for Childhood Obesity as well as Donna Johnson PhD, CD, RD for the opportunity to explore the complex issues surrounding food procurement by state government.

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Introduction

This project was meant to provide the Washington State Coalition for Childhood Obesity and other interested parties with a deep policy review of the current state of food procurement in Washington State including current policies and regulations currently in place as well as exploring the current state and possible problems associated with the food procurement policies in place. The project aimed to identify major problems occurring both at a state and national level as a consequence of insufficient nutritional guidelines to ensure that healthy foods are purchased and served to those institutionalized and served by the state. The following review will provide interested parties with an informational foundation from which possible change in the current food procurement process can evolve.

Objectives

Between January 8, 2009 and March 16, 2009, the graduate students in the Public Health Nutrition class at the University of Washington School of Public Health will:

1. Apply the 5 steps of Gerston's Policy Analysis Framework to the issue of nutrition standards for food procurement by state government.
 - Identify the problem
 - Describe the relevant background and context of the problem
 - Conduct a stakeholder analysis
 - Identify and assess policy options
 - Make recommendations
2. Create a Report for the Washington State Coalition for Childhood Obesity and other interested parties with the results of the policy analysis.
3. Create an Advocacy Fact Sheet for an audience of policy makers.
4. Prepare and deliver a presentation that will highlight the findings of the policy analysis and its implications for action.

Methods

The 5 steps of Gerston's Policy Analysis Framework were applied to the investigation of nutrition standards for food procurement by the Washington state government.

The methods used for obtaining information by all groups included interviews, website information and literature research. A list of all individuals contacted and their availability for this project, is listed in Appendix A. Teams used Googlewave and Googledocs in order to update the status of contacts and provide information across all team members.

The General Administration (GA) office at the state was found to be the main headquarter for state business contracts, including food procurement. The Food Umbrella Contract (FUC) #06006, the state's food procurement contract, was identified early on as the focus of this project.

Identifying the Problem

The problem of was broken into three main points of focus: (1) Researching the evidence that foods purchased and served by state agencies need improvement, (1a) How others have set the pace, (2) Evidence that food purchased and served needs improvement, the benefits associated with improving access to healthy foods, and consequences of poor nutrition, and (3)Issues of food served to vulnerable.

For each task, information was obtained from websites, key informants, peer-reviewed literature, and grey literature.

In order for research to be considered as legitimate, certain criteria had to be met. Studies were included if they had significant sample size, the study was recent and the populations were relevant to those people fed by the state. In addition, random controlled trials were favored. What follows is a more thorough explanation for each step of the methods.

1. The importance that government be a model for food purchasing

The search engine Google was used to search for the phrase, "state nutritional standards in food purchasing." This led to links on efforts in New York City and Massachusetts. Contacts listed on the executive orders for each of these efforts were emailed. One contact from NYC replied and granted a phone interview and another contact gave information about her experience as testifying in NYC (Appendix C has a script used for these key informant interviews). Public Health law resources and regulatory code of Washington (59) were searched to identify legal and statutory reasons government should be involved.

1a. How others have set the pace

Internet searching as well as literature searches on PubMed were also used to obtain information on how government bodies in other states and countries have successfully implemented changes to improve access and consumption of healthy foods.

2. Evidence that food purchased and served needs improvement, the benefits associated with improving access to healthy foods, and consequences of poor nutrition

Washington State Department of Health (DOH) reports for the population prevalence rates of diabetes, cardiovascular disease, obesity, and overweight status were identified. Health expenditure and general social costs attributed to these diseases were also investigated using grey literature, CDC website and peer-reviewed economic literature.

A copy of the 2009 fourth quarter food purchases of the FUC was analyzed using Excel. A list of unhealthy foods was generated from the foods purchased through the contract. In order to be included on the "unhealthy" list, foods had to obviously lack any nutritional value. For example, soda, cookies and cake mixes were included as unhealthy while chocolate milk and sugar-added fruit cups were not. For a complete list of all foods included in analysis, see Appendix B. The cost of all unhealthy foods was divided by the total cost of all food purchased for the quarter in order to obtain a percentage.

PubMed was used to search literature for the following terms: "workplace nutrition programs," "cognitive function and productivity in relation to healthy food consumption," "school lunch programs and removal of soda and/or trans fats," and "micronutrients and deficiencies."

3. Issues of food served to vulnerable populations

To identify vulnerable populations in Washington state, PubMed was used to search literature for the following terms: "violence, social cohesion in relation to nutrition," "length of stay in hospital in relation to nutrition," "healthy food's influence on behavior," and "nutrient empty foods and nutrient deficiencies."

To identify vulnerable populations fed by state food procurement, the Washington State General Administration (GA) Office website was used to identify organizations using state contracts to purchase food through the FUC. This contract serves state departments that provide food for populations such as the incarcerated (Department of Corrections, DOC), mentally-ill (Department of Social and Health Services, DSHS), disabled (DSHS), the elderly (DSHS) and veterans (Department of Veterans Affairs, DVA).

Relevant Background and Context of the Problem: State Food Procurement

The state involvement in food procurement was divided into three sections: (1) How much money the state spends on food annually and who the state is feeding with food purchased, (1a) Vendors involved in the state spending (2) Cost differentials with "healthier" food options, and (3) Barriers to legislation, executive order or regulations that specify nutrition standards for state procurement.

Initial Internet searching began at the Washington State website. Websites for state agencies, departments and nutrition-based programs were explored to learn the sources of funding for food purchased by each program. We accessed the FUC #06006 and thoroughly read through it to get a good understanding of the process of food purchasing and who to contact directly for further information. The contract website listed out the vendors that are contracted with the state and

listed all the state agencies that are able to use the FUC. We investigated some other agencies such as the Emergency Food Assistance Program and Commodity Supplemental Food Program only to determine they are tied to federal money and obtain foods through the USDA food procurement website.

The GA called to confirm the contact was Mr. McGuire, and a voice mail was left to let him know that a follow up email with questions would be sent to him within the week. Questions from all groups were gathered and a succinct list of questions were formulated and sent to Mr. McGuire (Appendix D). His response was prompt and very informative and he indicated his willingness to talk on the phone with us. One team member called him with follow up questions for further understanding. He gave us the main contact names and phone numbers for the four agencies that provide 80-90% of the FUC business, DSHS, DVA, DOC, and School of Deaf/Blind.

1. How much money the state spends on food annually and who it is feeding

The FUC listed the estimated annual budget spent on food and the contracted dollar amounts for each vendor. The FUC has inventory lists of each vendor and the costs of food items with the exception of fresh produce and some meat products as they varied with the market price. Mr. McGuire provided the 2009 fourth quarter purchase report for Food Services (FSA) the largest contracted vendor as an excel file (available on request). This document provided not only the amounts of money each facility within each agency spends in a quarter but also the types of food purchased and served. Additional information on the cost per plate at a variety of the state facilities was also identified.

We divided up the subsequent communication with the agencies among our team, shared our findings with all teams and requested again that all questions go through our team to eliminate a burden on the state officials that we would be contacting. Another sequence of formulating succinct questions was completed and team members contacted the various officials (Appendix E).

1a. Individual profiles of major contract purchasers including budgeting, who is served, and perceived barriers to legislation

Information from the interviews was considered in regards to barriers to regulated nutritional standards for food purchasing. All agency contacts were posed with a question regarding the potential push back of a state wide nutritional standard regulation. Additional web searching was done to investigate potential opposition to nutritional standards imposed for food purchasing.

2. Cost differentials with “healthier” food options

A brief cost differential was conducted on a few key food items that a “healthier” option could be used in substitution. A natural foods distributor, UNFI Foodservice was used for alternatives and costing to some foods supplied by FSA.

This process included several phone conversations, email correspondence and further website checking and reading. Our team conducted personal phone and email interviews with Registered Dietitians and food managers who had worked with the DOC, DVA and DSHS who gave us first hand experiences and a snapshot of the food environments in certain facilities.

Tables created

Various tables were generated: information on each of the four main agencies, the number of meals made and people they feed and 2009 4th quarter spending for FSA, cost comparison, and contracted vendors list with contract description (food type, length of contract and estimated budget). These tables will be found in the results section.

Stakeholder Analysis

The potential stakeholders concerned with the purchasing of food by the Washington State government were identified. Individuals and groups likely to be concerned with nutrition

standard policy changes were identified by using the Community Wheel model. Using this model, it was possible to make a general list of possible stakeholders based on particular segments of the community.

Literature was used to identify stakeholders in previous nutrition policy changes. Examples of these past changes in policy are: New York City, Montana, England and Massachusetts. These examples provided evidence-based information to help determine stakeholders who might support or oppose changes to Washington State food procurement policy. This literature review also provided information on the bias of each stakeholder. This information provided guidance for policy changes that would be most accepted and which would be most controversial.

An internet search for grey literature was done using Google search for articles on health policy in order to determine who the interested parties would be. Search words/phrases used included: "nutrition policy advocates", "Washington state nutrition advocates" "nutrition stakeholders" "nutrition policy stakeholders" "Montana nutrition policy stakeholders." Additionally, we conducted an internet search using PubMed and Google to look for previous examples of groups that advocated for individuals in settings that paralleled our proposed policy changes. Several political figures in Washington State were contacted including Seattle Mayor, Mike McGinn, Seattle City Councilman Mike O'Brien, and the Policy Office Director for Governor Chris Gregoire, Robin Arnold-Williams. In each of these phone conversations, we asked staffers how these individuals would react if food procurement policy changed in Washington State.

Email correspondence also contributed to identifying stakeholders. Ellen J. Fried, M.S. Ms. Fried a legal consultant to the Center for Science in the Public Interest, and a researcher at the Rudd Center for Food Policy and Obesity corresponded with us through email. She currently teaches food policy in the Department (NYU), manages a weekly farmer's market in Westchester County, and practices law in NYC.

Dr. Margo Wootan, the Director of Nutrition Policy at the Center for Science in the Public Interest (CSPI), a leading consumer advocacy organization that specializes in food, nutrition, and public health issues was also available to us through email.

Email contact and correspondence was made with James E. Tillotson, a professor of Food Policy and International Business at the Friedman School of Nutrition Science and Policy at Tufts University, and Parke E. Wilde, an associate professor at the Friedman School of Nutrition Science and Policy at Tufts University. Also, Deane Edelman, Nutrition Project Staff at the Center for Science in the Public Interest and Ana Garcia with the New York Academy of Medicine.

It became clear that it was important to include advocacy groups when determining who the stakeholders would be. An internet search for previous examples of groups that advocated for individuals that paralleled these policy changes occurred and several examples at the national level were found.

Existing Policies

Research for existing policies started with the four existing policies suggested to us: New York City, England, Montana and Massachusetts. After summarizing and studying these four, we decided to expand our search to the other US states and then ultimately included foreign countries and non-governmental organizations (NGO) such as the Red Cross.

The search for state policies was accomplished using a database of legislation passed and dead maintained by the Center for Disease Control. This database was queried for each state between the years 2001 and 2009 using the search terms: "Nutrition", "Nutrition and Physical Activity". All bills passed and dead were screened to find if they included provisions for nutritional standards during purchasing of food (available upon request).

A broader search outside the USA was done because the policy in England was very comprehensive and we wanted to find if other countries or large NGO's had followed their lead. An internet search for policies was done using Google search for countries using the search term "nutritional standards in food purchasing." This search was narrowed to focus on the European Union as they were expected to be the most likely to employ these sorts of purchasing policy. It was found that in fact, Norway has a very comprehensive food purchasing/supply policy. The

NGO's were screened individually to find if they did purchase food then were standards placed on those food purchases. The policy of the IOTF was singled out among the NGO's because of the novel approach that would encourage the use of Sugars, Oils and Fat for biofuels and therefore make their use as foods cost prohibitive.

A spreadsheet was created of all the potential policies. They were screened again to and sorted into a number of general categories depending on the focus of what they intend to promote or limit. Four categories of policies were identified and the best examples of those policies were presented to the class.

Recommendations

The class met as a whole to formally present initial findings and collaborate. Based on the information provided, possible policy recommendations for Washington state food procurement were discussed. However, this paper is meant to provide a platform from which these recommendations and others may arise and be explored in more depth.

Results

Identifying the Problem

1. The importance that government be a model for food purchasing

The state government should have some level of responsibility for the health of the residents of the state. The Washington State Legislature's Declaration of Public Policy explicitly lists, "promote, maintain, and assure the health of all citizens in the state, provide accessible health services, health manpower, health facilities, and other resources while controlling increases in costs, and recognize prevention as a high priority in health programs" as priorities of public policy (59).

1a. How Washington and others have set the pace

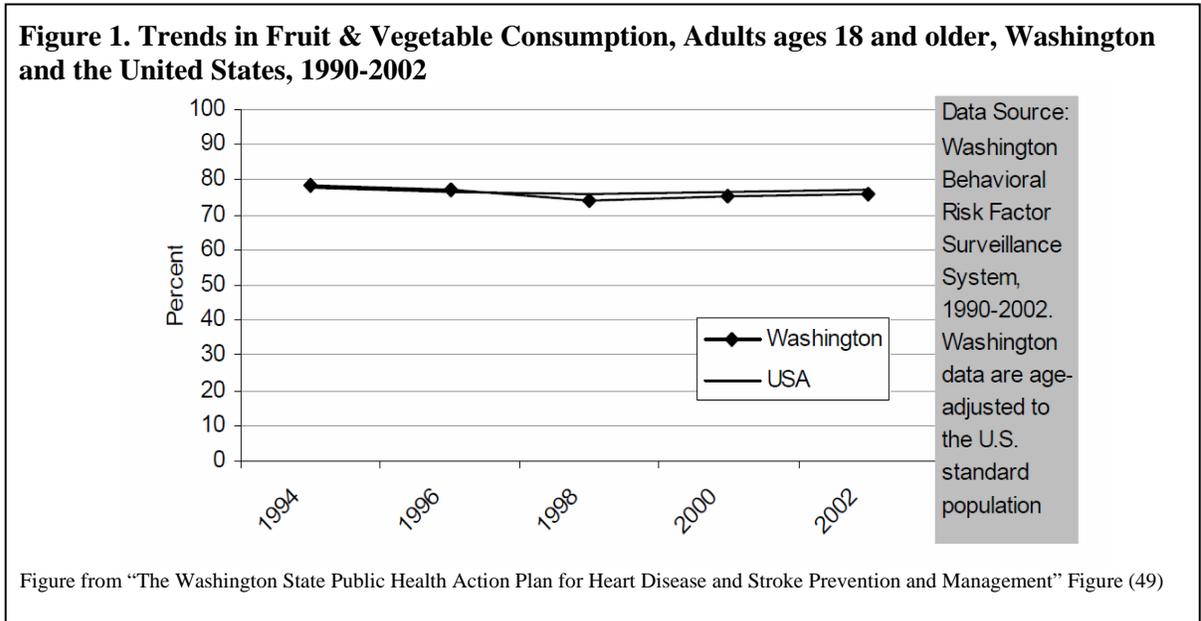
Example of Washington Setting the Pace

The state of Washington took the initiative to change the level of food insecurity among its vulnerable populations, providing improvements in this area. Washington increased their participation in federal programs. For example, between 2001 and 2004, there was a 59% increase in food stamp participation (33). Furthermore, Washington state legislature increased funding for school breakfast, lunch and summer meal programs (33). Ultimately by intervening, WA state decreased its prevalence of food insecurity within the state. As can be seen, with the support of the state, significant improvements can be achieved.

Examples of Government Taking Initiative to Improve Healthy Food

The United Kingdom was the first location to establish policy to dictate food standards for the products purchased by the government. They set up the Public Sector Food Procurement Initiative (PSFPI), which establishes "increase[ing] the consumption of healthy and nutritious food" as one of their goals (45). This idea of healthy government food purchasing was then introduced in the United States beginning in New York City (16). Montana and Massachusetts also followed suit in developing food procurement standards aimed at better

nutrition (21, 68). With roughly 80% of the population in Washington state and across the US failing to meet the daily recommendations for fruit and vegetable consumption (figure 1), programs enabling healthy and nutritious food consumption are especially important (49).



Additionally, it should be noted that there are commonalities between the obesity epidemic and other areas where governmental intervention has occurred in the past, such as drugs and alcohol. These commonalities include: social disapproval, medical science, self-help, the demon-user, demon industry, mass movement, and interest group action (35).

Success in the Workplace – A model for organizational change

The following discussion uses the workplace as a model for how employees benefit from organization-wide improvement in healthy foods made available at work. While the example specifically addresses employees, those individuals served under the contract would similarly benefit from standardizing and requiring healthier food procurement guidelines. “Recent evidence from the social sciences and behavioral medicine literature suggest that environmental modification and *policy changes* and approaches are more successful at producing sustained behavior change that can reach employees across varied socioeconomic groups”(8). Therefore, policy change is necessary in order to promote long-term behavior change among individuals.

Continuing with the evidence from studies in the workplace, "...employers are more willing to invest in meal plan improvements knowing that their competitors must make similar improvements" (55). In other words, if the state requires change and all participating organizations are obligated to make standard changes, then there will be less resistance or "push back" from these organizations. In addition there will be more immediate action and subsequent results than if similar movements towards improving availability and purchasing of healthy foods was approached by each independent organization (55).

2. Evidence that food purchased and served needs improvement, the benefits associated with improving access to healthy foods, and consequences of poor nutrition

The rate of overweight and obese people are still rising

The prevalence of adult obesity in both Washington state and across the US has steadily increased from 1990 to 2002 (figure 2) (49). Obesity is associated with higher risk of morbidity and mortality, type 2 diabetes, heart disease, stroke, gall bladder disease, and musculoskeletal disorders (68). Therefore with this increase in obesity, Washington state's population is also experiencing an increased risk for the previously listed diseases. The increased risk of heart disease and stroke are especially troubling given that combined they **account** for one third of the deaths in Washington state (49). The American Dietetics Association (ADA) has proposed a set of goals to be included in Healthy People 2020; one of these proposed goals is to "eliminate preventable disease, disability, and premature death" (40). Through helping control obesity levels, we are also controlling preventable disease levels, and therefore working towards this goal.

Figure 2. Trends in Obesity Prevalence, Adults ages 18 and older, Washington and the United States, 1990-2002

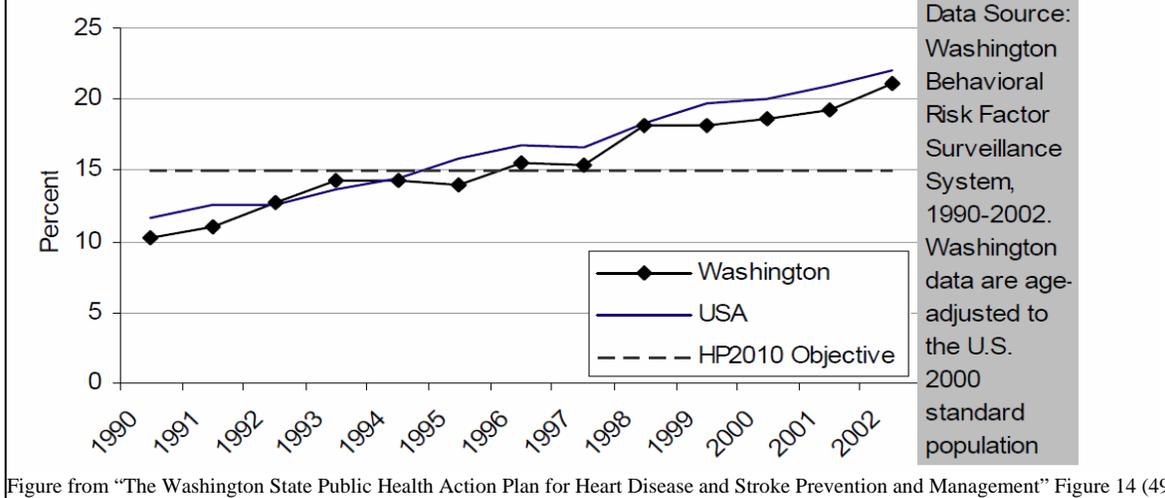


Figure from "The Washington State Public Health Action Plan for Heart Disease and Stroke Prevention and Management" Figure 14 (49)

There has been much research conducted in the area of obesity and its causes as well as possible prevention and treatment methods. It is clear that obesity results from a number of contributing environmental factors including accessibility, socioeconomic status, and cost of food. Unfortunately, the food that is most readily accessible and cost efficient is nutrient poor and calorie rich, a recipe for weight gain and poor health (14). Contributing to the increasing rates of obesity is the hypothesis that the human body has mastered energy storage in the form of fat through years of evolution where this was a necessary mechanism to survive food draughts and times of famine (41). Therefore the combination of genetics contributing to weight gain and an environment that facilitates calorie-rich foods has led to an escalation of the problem. Therefore, at a minimum, the food that is made available to people served by the state should provide healthy foods and this begins with enforcing regulations that support the production, sale, purchase and availability of healthy foods to those people served by the state. This is particularly important when considering that the state is often charged with the responsibility of serving vulnerable and underserved or low income populations.

The economic burden of unhealthy diets

Poor diet results in increased economic burden for various reasons. There are the costs associated with diet related diseases. As outlined in figure 3, hospitalization associated with cardiovascular disease accounted for \$1.7 billion in 2002 without including other indirectly related costs such as missed days of work (49). Furthermore, reports on the effectiveness of

the WIC program established that for every \$1 spent on a nutritious diet, more than \$3, in the form of treatment costs, are saved (54). The Public Sector Food Procurement Initiative (PSFPI) out of the United Kingdom states that nutritious diets are associated with shorter hospital recovery time, and therefore cheaper hospital bills (45). The PSFPI also comments on the lower levels of food waste with better tasting food, and subsequent savings due to fewer disposal services needed (45). In addition to health care costs, poor nutrition during wage earning years results in economic loss through: decreased income, increased number of days missing work, and decreased productivity while at work (49).

Figure 3. Hospital Charges for Major Chronic Diseases in Washington State, 2002

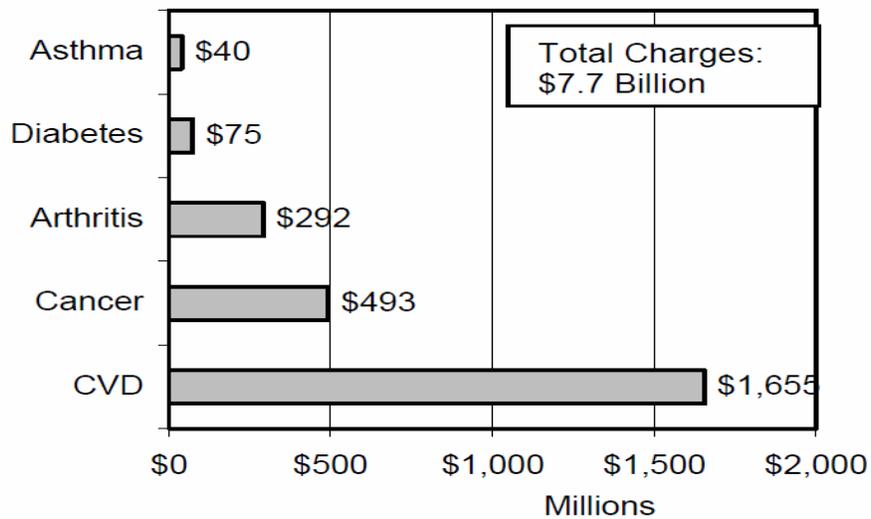


Figure from "The Washington State Public Health Action Plan for Heart Disease and Stroke Prevention and Management" Figure 18. (49)

Interestingly enough, in the United States, healthcare as a proportion of Gross Domestic Product (GDP) is rising, (see figure 4) and food expenditures are decreasing (66). In 2008 on 3.2% of GDP was spent on food while 14.8% of the GDP was spent on healthcare (6). In line with much of the evidence found in this document, the spending differentials between food and healthcare are related. With decrease spending in food, it is likely that there is also a decline in quality, leading to the many health implications discussed, resulting in increased healthcare costs.



Figure 4. International Comparison of Spending on Health, 1980-2005

QuickTime™ and a
decompressor
are needed to see this picture.

Figure from “The Commonwealth Find Commission on a High Performance Health System” Exhibit 3 (66)

Washington State Expenditures

During one quarter of spending through umbrella contract, a total of \$2,524,649.87 was spent on food that had no apparent nutritious value. This value represents 9% of the total items purchased from the contract that quarter. This percentage represents foods that are recognized as unhealthy with no nutritious redeeming quality. For example, soda, chips and cookie dough fell into this category (see Appendix B for more details).

Diet and the workplace

Eating healthfully in the workplace environment presents challenges for multiple reasons. For one, peer pressure is present, and likely influences the decisions made by employees each day. And yet many of these individuals are likely unaware of the subliminal pressures they succumb to each day. For example, if a group of employees go out to pizza for lunch, it is challenging to be the ‘odd man or woman out’ and suggest a healthier alternative (55). In addition, commuting times and the number of two-worker households have increased; this leads to a decrease in time available for the consumption of a nutritious breakfast as well as

decreased energy available for dinner preparation (55). Therefore, the workplace is where many people *could* receive a healthy and balanced meal *if* the availability of healthful foods was improved (55).

Examples of changes in food offered at work and related improvements

Nutrition worksite intervention strategies have been implemented in Denmark. Worksites have implemented well-organized and evaluated national programs with the intent to promote low cost fruits in the workplace. Results from this program, which was evaluated in multiple worksites, show a 70 g fruit per day increase and a 50% decrease in candy and sweet snack consumption among male employees. It was also found that the annual cost per employee is about equal to one sick day per year per employee. Therefore, the program is effective both from a cost-benefit perspective as well as in improving employee diets in worksites.

Furthermore, Dole has made changes in their menu to encourage more healthful consumption of foods among consumers. Results from these changes show that the increase in access and exposure to healthy foods led to the consumption of those foods. In fact, a majority of employers reported trying new foods (55). This finding supports that exposure to healthy foods in the workplace will thereby lead to increased consumption of these foods.

In order to determine the relationship between fruit and vegetable availability and consumption patterns, a systematic review of studies examining this association were evaluated (31). Results from this review consistently displayed that the *availability* of fruit and vegetables allowed for an increase in consumption of these food items (31). Specific populations observed were school children, Native Americans, low-income African Americans, and children in the home environment (31). The relationship between fruit and vegetable availability and consumption was found to be sustained over time, while also effective in mediating changes in consumption patterns (31). Clearly, this relationship has significant implications for policy involvement in procurement guidelines. Specifically, an increase in the availability of healthy foods among state-funded food recipients has the

potential to increase the consumption of these foods, and thereby help curb the trends in obesity and other negative health outcomes.

Health Concerns / Cost

Poor nutrition in the workplace has implications on occupational safety and health (55). For instance, malnutrition promotes lethargy among workers, which further increases the chance of workplace accidents (55). Furthermore, lethargy decreases productivity and competitiveness which promotes higher business costs, lower wages and greater wealth disparities. Finally, these wealth disparities contribute to poor nutrition and therefore poor health. And poor health further compromises the energy level of employees, continuing this cycle of events (55). See figure 5.

In addition, research shows that workplace wellness programs are an important strategy for preventing the major shared risk factors of cardiovascular disease (CVD) and stroke (8). An estimated 25 to 30% of companies’ medical costs per year are spent on employees with major risk factors – obesity, hypertension, dyslipidemia, diabetes (8). And an estimated expense associated with all heart diseases combined is \$304.6 billion (8). Just focusing on obese employees, the medical spending on these individuals is 37% higher than for people of normal weight.” (8).

Furthermore, “the Centers for Disease Control and Prevention estimated that a 10% weight loss will reduce an overweight individual’s lifetime medical costs by \$2200 to \$5300 by lowering costs associated with the treatment of hypertension, type 2 diabetes mellitus, heart disease, stroke and high cholesterol” (8). As can be seen, the implications for weight loss in worksites, mediated by improvements in the nutrition quality of food served, have significant implications.



Figure 5. The vicious cycle

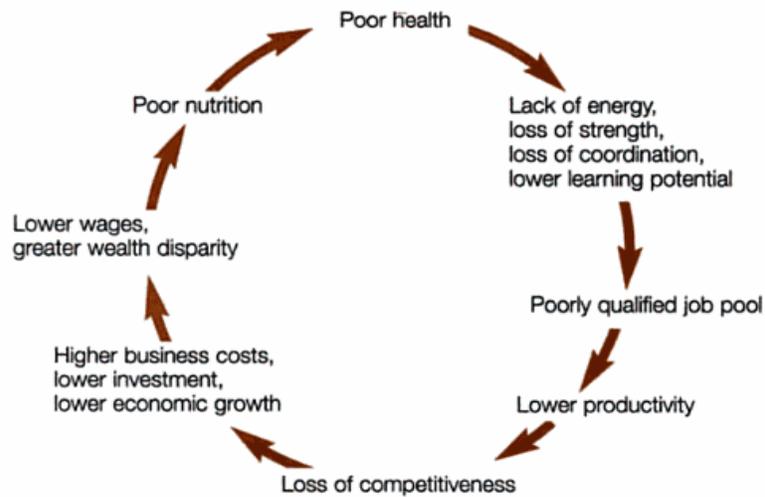


Figure from "Food at Work" Figure 3.1 (55)

Diet and Behavior

Vitamin/mineral supplementation in imprisoned and aggressively diagnosed juveniles decreased incidences of violence (5). Furthermore, vitamin/mineral supplementation among children displays a greater decrease in delinquency incidences among the supplement group as compared to the control group (5).

A vitamin / mineral supplemented diet was found to decrease the prevalence of minor reports in young adult prisoners (19). Minor reports were defined as antisocial behavior and incidents involving violence (19). Specifically, there was a 33% decrease in minor report prevalence compared to baseline. Furthermore, serious incidences were decreased by 37% compared to the placebo group which decreased by 10% (19). It should be noted that omega-3 and omega-6 fatty acids were also included in the experimental supplement group. The vitamin / mineral supplemented diet exemplifies a diverse diet in fruit, vegetables and other nutrient-dense foods in which all of these vitamins / minerals can be obtained. Therefore, by providing foods containing these nutrients in the prison setting, there is significant potential for improving behavior and violence trends among prisoners.

Micronutrients and Health

Iron supplementation of non-anemic but iron-deficient adolescent girls has been shown to improve verbal learning and memory (5). Furthermore, micronutrient supplementation displays improvements in mood, memory and attention (5). Specifically, improved cognition from thiamine supplementation was observed among children, even when their diets were already supplied with recommended levels (5).

Antioxidants, B vitamins and omega-3 fatty acids are associated with reduced risks for Alzheimer's or cognitive decline among aging populations (61). Furthermore, diets with high RFS (recommended food score based on Dietary Guidelines for Americans) – fruits, vegetables, whole grains, nuts, fatty fish, and low-fat milk and dairy – associated with better cognitive test scores (61). In fact, this effect is more than double the effect for those with at least one copy of the APOE e-4 allele – a genetic risk factor for Alzheimer's and cognitive decline. And finally, Mediterranean dietary patterns (diets high in fruits, vegetables, legumes, whole grains, fish, and healthy fats) have displayed a decreased incidence of and mortality from Alzheimer's (61).

3. Issues of food served to vulnerable populations

Vulnerable populations have additional risks

There are subsets of the population who are at increased risk of becoming overweight or obese. These groups include individuals with developmental disabilities and individuals with movement difficulties or limitations (40). People with developmental disabilities are also at greater risk for heart disease, seizures, hearing and vision problems, low bone mineral density, and poor fitness (40). Therefore it is especially important to try to promote healthy food consumption for these individuals. In addition, state food is also served to those in hospitals for whom adequate and quality nutrition is crucial for their recovery and sustained health (65).

Relevant Background and Context of the Problem: State Food Procurement

Currently Washington State utilizes the #06006 FUC for collective purchasing of food and food related disposables. This contract decreases the price of products for eligible users. These eligible users consist of any Washington State agency. Currently WA State Department of Corrections, WA State Department of Social and Health Services, WA State Patrol Academy, WA Department of Veterans' Affairs, qualified cooperative members, and participating colleges and universities utilize the contract. Annually the contract is worth roughly \$51 million. Individual contracts with the currently approved vendors are due to expire this month, at which point new contract bids from vendors will be considered (56).

1. How much money the state spends on food annually and who it is feeding

Purchasers

Washington State's FUC "provides Washington State customers with high quality food and food related products at an effective cost and with an efficient distribution service." The contract is "designed to effectively leverage the state's collective buying power" and is made up of a series of vendors (Table 2). The vendors are all in state operations and regionalized to better serve their immediate communities.

The primary purchasers (80-90%) of Washington State under the Food Umbrella are The Department of Social and Health Services (DSHS), Department of Corrections (DOC), Department of Veteran Affairs (DVA) and the School for the Deaf & Blind. The remaining 10-20% of the purchasers include non-profit organizations, colleges, universities, community and technical colleges. Less than 1% of the contract is political subdivisions, cities, counties, hospitals, colleges, and even Oregon. Foods that are available to purchase under the contract include dairy, produce, bakery, meat, canned, dried, bulk, frozen, and USDA donated commodities. The contract also includes kitchen equipment, disposables, non-disposable plastic serving ware and janitorial items.

Table 1. State departments receiving Washington state funding for food.

Department	Department	Population	Average Meals per Month	Quarterly Spending (FSA 4th Qtr 2009)
DSHS	13 institutions, 6 group homes	3,775	*4.1 million meals in 2009	\$1,307,705.81 \$22.4 million 2009
DVA	(3 locations)		40,600+	\$293,334.52
Department of Corrections	(18 correctional facilities)	1,5361	1,434,287	\$1,902,501.30

Budget & Spending

Based on the usage reported by the vendors in 2008, the amount spent each year by state agencies is \$25 million (food service disposables are included under the FUC but are not included in this figure). Each agency is offered the same pricing and service and thus vendors must follow the Terms & Conditions stipulated in the contract.

Any items may be purchased from a contracted vender under the FUC but agencies cannot cross over into another state contract. Food budgets and planning are determined within each of the agencies and each agency pays the vendors directly with WA state funds.

1a. Individual profiles of major contract purchasers including budgeting, who is served and perceived barriers to legislation

*All information listed below was obtained through interviews with the corresponding contact

DSHS Food Procurement

Contact: Erin Hamilton (360) 664-6142

Budget & Spending

Washington State’s mental hospitals, developmentally disabled hospitals and juvenile rehabilitation centers constitute the Department of Social and Health Services (DSHS). While DSHS does not have a food budget, in 2009, approximately \$22.4 Million Dollars was spent under the FUC making approximately 4.1 million meals, which cost about \$5.45 per plate (this may vary slightly between institutions).

Who is Fed

Food purchased by DSHS feeds 3,775 residents in 13 institutions and 6 group homes across the state. A small number of meals are for employees who have collective bargaining

agreements (unions) with DSHS that stipulate staff receive meals depending on their duties (e.g. overtime, supervise residents during meals). These stipulations are not uniform throughout institutions.

Menu Planning

On-site dietitians are responsible for meal and menu planning. Meals are planned to meet or exceed nutrient needs for a 51-70 year old female regardless of the large age range (juveniles to elderly) throughout the facilities. Individual menus are designed for residents when their nutritional needs or preferences differ significantly from the regular menu.

Regulations & Guidelines

Foods must be purchased according to their menu, but there are no restrictions in purchasing except to control costs. The cook-supervisors are responsible for purchasing the food and food managers review orders.

Guidelines for food purchases vary by institution. The Juvenile Rehabilitation Administration (JRA) has the strictest guidelines for purchasing due to USDA reimbursement requirements. For highly susceptible populations, Department of Health Guidelines are followed, which include omitting foods that are of high risk for causing food borne illness such as undercooked eggs, meat, sprouts, unpasteurized juices or dairy products.

Dietitians and food managers follow the guidelines in place for each facility. Dietitians are onsite to ensure menus are followed or appropriate substitutions are made. The annual survey is another way to ensure that the guidelines are met.

Regulation Opinions

Erin Hamilton was posed with several questions regarding state regulation or food procurement. Potential barriers of having state regulation of food procurement would be determining a common menu. The types of facilities, and hence the different needs of its residents, under the DSHS umbrella differ significantly, so the types of food purchased would also differ by facility.

There was also concern implementing regulation to mandate healthy foods and what constitutes healthy food. DSHS likes the ability to maintain making food purchasing decisions and already feel the foods purchased for their residents are safe and wholesome. In addition, they have not found any particular foods or beverages not under the current contract that they desire; their food purchasing needs are met although, the ability to purchase from farmer's markets would be nice.

Department of Veteran Affairs

Contacts:

Tish Greenfield (360) 725-2206 tishg@dva.wa.gov

Theresa Stanton-Grose (Food Manager at Port orchard) 360.895.4348 theresas@dva.wa.gov

Budget & Spending

The Department of Veteran Affairs (DVA) serves residents at three locations in Washington State. In 2009, their fourth quarter spending for Food Service of America contractor under the FUC was \$293,334.52. The DVA makes more than 40,600 meals per month serving three meals a day plus snacks for all locations.

Who is Fed

Food purchased by the DVA feeds residents, primarily men, at three locations throughout the state. The residents are used to military meals made of limited resources and 3000-4000 calories per day. The meals provided by DVA contain fruits and vegetables, "exotic" foods will go uneaten, and meat and potatoes are most desired. Due to bladder and urination problems, the only fluids residents will drink is juice. Otherwise they would rather not drink.

Menu Planning

Meals are based at 2200 calories per day and from there are tailored for individuals with specific needs (e.g. sodium levels) and do not limit religious diets. Food is made from scratch and the staff cooks the meals based on their own recipes, old military recipes, and recipes found on line. Recipes are modified to fit the menu and resident population.

Regulations & Guidelines

The DVA has little limitations regarding food purchasing; their limitations are based on the resident's wants. The DVA follows HPSI standard meal plans and then modify it to meet resident's needs. Dieticians check foods and recipes on a regular basis.

Department of Corrections Food Procurement

Contacts: Jay Jackson, Food Program Manager (360) 725-9165
Brent Carney, agency RD (360) 725-8314

Budget & Spending

Washington State's Department of Corrections (DOC) spent \$22.1 million in 2009 on food purchased from the FUC, Correctional Industries and local farms. The fourth quarter spending alone for Food Service of America vendor under the FUC was \$1,902,501.30. The combined facilities provide 1,434,287 meals per month costing \$2.22 per plate (\$1.32 food, \$0.81 for labor and \$0.09 for paper, cleaning supplies, etc).

Who is Fed

Food purchased by DOC feeds 15,361 residents in 18 correctional facilities and some staff at the larger sites. The offenders receive three meals per day seven days a week.

Menu Planning

A statewide dietician is responsible for providing all of the facilities with nutritional advice. Current meals are based on a caloric intake of males at 2,000-3,000 calories per day. Different food choices are not available to the residents; for example they cannot substitute a serving of vegetables in place of potatoes. Menus are written using DRIs from the Food and Nutrition Board and the Institute of Medicine (IOM) and are designed by each facility. The food purchases, made by a food manager, are made based on the DOC menus.

Regulations & Guidelines

Nutritional guidelines are based on DRIs and IOM. The DOC has recently developed a compliance metrics. Each facility must submit to the state dietitian, a monthly report with a minimum threshold of 90% compliance. The food manager verifies, at least monthly, adherence to the guidelines in the reports.

Regulation Opinions

The dietitian would welcome state regulation, but a significant barrier might be cost. The DOC menus drive the purchases, so they are not limited in food or beverage items if it is on the menu. But, the biggest obstacle to their purchasing is cost. For example, the dietitian would like to purchase gluten free pasta, but most items like these are cost prohibitive.

The other barrier to cost restriction is trying to decrease the sodium content in processed foods. Low fat dairy is already used as a means to reduce fat content. Some changes have the potential to be made (e.g. reduced sodium foods) when the dietitian updates the current DOC menus by providing more fresh produce and reducing fat and sodium content in the foods.

Pilot Project – A Model for Change

There are several initiatives, or pilot projects, underway at a few of the DOC facilities to restructure the food served to the offenders. The reasons for these adjustments are for the health of the offenders and to reduce spending costs. By changing to healthier food options and making other changes to the current system, they have already found there to be a cost savings.

With the target date of May 1st, breads will be switched to whole grains and there will be a standardization of foods across agencies to increase consistency of types and quality of foods. Also within the year, produce will be purchased locally for two facilities and this pilot project will run for two years.

Current portion sizes are based on a 2000-3000 calorie/day diet. With the new initiatives underway, portion sizes have been modified to fit the appropriate population. In addition, come June, there will be a menu change where fresh fruit and vegetables will be provided almost everyday and fat and sodium content in foods will be reduced. All of the foods provided to the offenders are foods that are only found at grocery stores (e.g. Safeway and QFC) so the offenders upon release can find the foods they were served.

Switching to whole grains and fresh fruits and vegetables has proved cost effective; there may be further decrease in costs from purchasing controls and volume. Cost savings have been found in buying foods locally and that healthier foods either cost the same or are cheaper than less healthier foods. To further increase buying power and reduce costs, DOC is trying to work with other state agencies (e.g. DSHS) to make similar changes.

Further cost savings have been made by making changes to internal operations in Foodservice. There is greater portion control (reduced serving sizes), reduced waste and theft. As DOC learns the process of buying locally, they will expand these initiatives to additional facilities. But, this will be a learning curve because of the security associated with prisons.

To continue to improve the health of the offenders, DOC will have the Slender Offender Project that will focus on exercise, diet and education focusing on holistic concepts. Additionally, other future studies may include looking at behavior changes and potential reduction in fights based on dietary changes if the budget allows (although this did not sound too promising).

Regulations & Guidelines

There are not any regulations through the General Administration Office, but each agency has their own guidelines to follow.

Regulation Opinions

FOOD Commodities is always looking for ways to save money; an example is to continue securing maximizing purchasing power. A recent example of how the FUC ensures best prices for state purchasing: As reported on 01-08-2009, the GA held a meeting with FSA, DOC and DSHS to finalize the implementation of the new market basket for the State and for DOC. After much hard work from all parties involved, this new market basket has consolidated items and will be at a less cost to the state through FSA negotiating pricing with manufacturers.

New vendors can be added to the FUC, but there is a business side to bidding with the state making it difficult and a hindrance for new vendors. The current term ends on 03-21-2010 for many vendors,

although some have received extensions such as the produce vendors.

Implementing nutritional standards enforced at the state level would be up to the health and nutrition experts within the agencies since they all have guidelines that they follow.

Table 2. Current Food Umbrella Contract Venders

Contractor	Contract Worth	per	State Region of Contract	
Food Services of America	\$20,000,000.00	two years	Statewide	Frozen, Chilled and Canned; Bulk
Liberty Distributing Inc	\$2,250,000.00	two years	Statewide	Bakery, Fresh
Franz Family Bakeries	\$750,000	two years	Statewide	Bakery, Fresh
Unisource	\$2,800,000.00	two years	Statewide	Food Service Disposables
Charlie's Produce	\$2,800,000.00	two years	Regions: Olympic, Northwest & Southwest	Fresh fruit and vegetables
Spokane Produce	\$800,000.00	two years	Region: South Central, North Central & Eastern	Fresh fruit and vegetables
Medosweet Farms	\$4,116,000.00	two years	Regions: Olympic and Northwest	Dairy
Darigold, Inc.	\$560,000	two years	Region: South Central	Dairy
Liberty Distributing	\$140,000.00	two years	Region: Southwest	Dairy
Terry's Dairy Inc.	\$784,000.00	two years	Regions: Eastern and North Central	Dairy
Department of Corrections	\$8,000,000.00	two years	Frozen Meat	Frozen meat
Estimated Annual Contract worth \$16,969,006 2008 Usage report indicated \$25 million was spent by DSHS, DOC, DVA & School for the Deaf and Blind				

2. Cost differentials with “healthier” food options

Table 3: Whole Wheat vs. White. These are price comparisons between wheat and white bakery items already available through vendors used in the Food Umbrella Contract.

Liberty Distributing and Franz Bakery serve different regions of Washington state.

Bakery Contractor	Product	Wheat price per unit	White price per unit	Price Difference (whole - white)
Liberty	Bread, wheat, round top, 22.5 ounce	0.83	0.76	0.07
Liberty	Bread, wheat, Pullman, 24 ounce	0.93	0.87	0.06
Liberty	Bun, multi grain whole wheat, 4 ½ inch, 8/pkg 18 ounce	1.01	1.01	0
Liberty	other products available but pricing not listed online*			
Franz	Bread, wheat, round top, 22.5 to 24 ounce	1.12	1.12	0
Franz	Bread, wheat, Pullman, 22 ounce	1.17	1.12	0.05
Franz	Roll, tea, wheat, 12/pkg, 15 ounce	1.9	1.9	0
Franz	Bun, multi grain whole wheat, hamburger 12/pkg 24 ounce	1.66	1.52	0.14
Franz	Bun, WW hot dog, 8/pkg cluster, 12 ounce	1.51	1.06	0.45
Franz	Roll, hoagie, WW, hinged, 6/pkg, 16 ounce	1.51	1.27	0.24
Franz	Whole Wheat Hot Dog Buns 8/Pkg	1.06	NA	NA
Franz	Whole grain White Ham 8 Pack	1.14	NA	NA
Franz	Whole Grain Hot Dog 8 Pack	1.14	NA	NA

Table 4: UNFI vs. FSA. These are price comparisons between healthier options from United Natural Foods, Inc. (UNFI) and foods currently available within the Food Umbrella Contract by Food Services of America (FSA).

UNFI product	price (oz)	FSA product	price (oz)	Difference (per oz)	Nutritional benefit
Arrowhead Buttermilk p.cake mix	0.12	Krusteaz Buttermilk p.cake mix	0.04	+0.08	whole grain wheat flour no sugar
Arrowhead Mills - Bear Mush hot cereal	0.06	Krusteaz Zoom hot cereal	0.10	-0.04	higher fiber
Spectrum - lite	0.13	Ventura mayo lite	0.06	+0.07	no sugar
Marg. - spring tree	0.15	Margerine - FSA/sig	0.03	+0.14	no <i>trans</i> fats
Peanut Butter/ Once again (org)	0.20	Peanut Butter - FSA/sig	0.08	+0.12	no sugar added fats
PB - non org Natural Value	0.125	Peanut Butter - FSA/sig	0.08	+0.045	no sugar added fats

Stakeholder Analysis

Upon analysis of all those that may have vested interest in possible changes in food procurement, it becomes clear that the bottom line and the platform for arguments either for or against the incorporation of more healthful foods will be largely based on the financial burden or feasibility associated with the suggested change. More feasible and cost effective solutions will gain more support. It has been suggested however, that formal food standards may ultimately save money (12). The United Kingdom's (UK) public procurement was designed to save the Government more than 14 billion dollars" (67). For example, New York's 2008 procurement policy sought out to address chronic disease. Chronic disease and the associated complications cost the state thousands of dollars in health care expenses every year. Prevention of these conditions, therefore, has the capacity to save the state money that would otherwise be spent on healthcare costs. Despite the fiscal advantages, controversy remains over what constitutes an improvement in procurement or over what definition should be used to determine what a "healthy food" is (13).

The producers in industry would support a change in procurement if it increased the opportunities for their product. This could include greater opportunities for small and local producers in Washington (12). For example, In the UK, after it was discovered that nearly one third of all food the government purchased came from abroad, the UK's House of Commons Committee of Public Accounts formulated a report on "Smarter Food Procurement in the Public Sector." This report offers recommendations for procuring healthy foods from sustainable sources. It emphasizes the "Government's objectives for sustainable food procurement to include increasing the capacity and opportunity for smaller and local producers to meet public sector demand (67). During the procurement process, the UK project encouraged the public to support local markets by working with The Departments for Education and Skills, Environment, Food and Rural Affairs, and local schools and authorities. One of the production challenges that the House of Commons faced was the issue of supporting local agriculture while also getting the best money value. There may only be controversy if there is too much competition for participation in the state contract.

Possible changes made in state procurement must include a legal framework that provides “public bodies with the flexibility to be innovative in their procurement” (44). “Administrators of public institutions must be allowed to target their procurement toward the producers, processors and distributors who are best able to meet the food service market’s needs” (21). The preservation of organization’s independence and autonomy is crucial.

Table 5: Possible Stakeholders to Consider when implementing change

SCHOOL FOR DEAF, SCHOOL FOR THE BLIND:

- Teachers
- Parent Staff Organization (School for the Deaf)
- Administrators
- Advocacy groups (D.E.A.F., Washington State Department of Services for the Blind (DSB), American Council of the Blind (ACB), American Foundation for the Blind (AFB), Americans with Disabilities Act (ADA))
- Food Service Staff
- Students

DEPARTMENT OF CORRECTIONS:

- Administrators
- Inmates
- Families of inmates
- Ethnic groups / Ethnic advocacy groups
- State prison related advocacy groups (Citizens United for Rehabilitation of Errants (CURE) ACLU (especially for religious groups))

DEPARTMENT OF SOCIAL AND HEALTH SERVICES:

Juvenile Detention

- Juvenile Rehabilitation Administration (JRA)
- Parents of juvenile detention kids
- Related advocacy groups: The Annie E. Casey Foundation

Senior Services, Long term care

- Patients
- Family members
- Staff
- National Association for the Support of Long Term Care
- Long Term Care Ombudsman Washington State
- National Center for Assisted Living
- Washington Health Care Association

Meals on Wheels

- Clients
- Families

State Mental Hospitals

- Child Study and Treatment Center (Staff, families and children)

- Eastern State Hospital
- Western State Hospital
- Administrators/ staff
- Patients
- Patient Families
- Food Service Staff
- Advocacy Groups: State Mental Health Agency, State Protection and Advocacy Agency, Mental Health America, The National Alliance on Mental Illness, Capital Club House, The Washington Protection and Advocacy System, National Alliance on Mental Illness-NAMI, Washington State Hospital Association
- Farmers Market Nutrition Program
- Clients

DEPARTMENT OF VETERANS AFFAIRS:

- Veterans of the US and their families
- Homeless Veterans
- Governor’s Veterans Affairs Advisory Committee
- Veteran's Legislative Coalition
- State Elected Officials
- Local Government and Staff (Seattle and Olympia)
- Long-Term Care Services
- Veterans Disability Services and Support
- Community Based Services (partnership with DSHS)
- Residential Transitional Services
- Geropsychiatric Program
- Administrators/Staff

AGRICULTURE/ DAIRY:

- Dairy Farmers of America
- Dairy Farmers of Washington
- Washington Farm Bureau
- Agriculture & Applied Economics Association (AAEA)
- Washington State Department of Agriculture
- Western Washington Agriculture Association
- National Association of State Departments of Agriculture (NASDA)
- American Farmland Trust
- Pacific Northwest Vegetable Association (PNVA)

BUSINESS:

- Association of Washington Business (AWB)

Note: As a plan for change is implemented there may be more stakeholders to consider depending on action taken

Existing Policies

Our research yielded a vast array of potential policy tools. These can be sorted into a number of general categories depending on the focus of what they intend to promote or limit. In this section, we highlight examples of policies in each category. We present more details about selected policies in the “Details of Policies” section. For most policies we found no evaluation of the effectiveness of the policy per se; many are either nascent programs or rely on the evidence underlying the definition of healthy foods (or both). This analysis focuses on policies related to food and food choices, but many of the policies listed also have or are related to overall wellness efforts that promote exercise and weight loss.

Whom to purchase from

This may involve both limitations on certain producers and marketers as well as promoting certain producers, often in-state producers. The latter may involve exempting fruits and vegetables from the usual competitive bidding process in order to promote local producers. Note that this may have subtle effects on the actual mix of food consumed—e.g., some policies conflate “locally grown” with “healthy”. Thus, while they are likely to win the support of producers, policymakers should pay attention to how much the nutrition of end consumers is actually improved. Nonetheless, focusing on local farmers inherently means focusing more on fruits and vegetables and less on processed foods. For Washington State, this might require changes to the FUC. Several state legislatures, recognizing both the potential health benefits and benefits to the local economy, have begun supporting local food suppliers through incentives, infrastructure and institutional changes, branding efforts, and farmer's market expansions (62). Policies that provide incentives for the production, distribution, and procurement of foods from local farms coincide with the Centers for Disease Control and Prevention's Media, Access, Point of Decision Information, Price, and Social Support & Services prevention strategies.

- Farm-to-School, Farm-to-Seniors, and Farm-to-WIC programs, such as in Maine (SB376 2001), Iowa (SF601 2007), Kentucky (SB25 2007), and Washington (SB6483/HB2798). According to the policy context table in Appendix F, 21 states have initiated Farm-to-

School policies. The Washington state program is a broad collaboration among the Department of Agriculture, Washington State University King County Extension, Washington Environmental Council, the Office of the Superintendent of Public Instruction, and Public Health Seattle/King County. The first Farm-to-School program in Washington was started in Olympia in 2002. Since then school districts and individual schools around the state have implemented a range of Farm-to-School programs, including school gardens, chef in the classroom projects, farm visits, and highlighting locally grown foods in lunch menus. These programs demonstrate how agencies can connect their cafeterias to farmers and how states can support farmers in marketing to institutional purchasers.

- Based partly on Farm-to-School efforts, the Washington Department of Agriculture published *Farm to Cafeteria Connections: Marketing Opportunities for Small Farms in Washington State* (57). Another example of efforts to enable and support marketing by and contracting with local farmers is the *Community Alliance with Family Farmers* (11). These represent attempts to address incentives and structural issues in the food marketplace and may include attempts to redefine food “value” by including other considerations besides bottom-line price
- Kaiser Permanente promotes farm stands in the parking lots of the facilities in Oregon, Hawaii and California to create more access to fruits and vegetables (healthy food) and promote health and cooperation with the local farmers. This is part of a larger food policy that promotes purchasing from local sources.
- Kentucky (HB669 2006 & HB626 2008) requires state agencies to purchase agricultural products grown in KY. This is also an example of starting with a demonstration program—in this case state parks—and expanding to other agencies after showing success.
- Massachusetts (HB4429 2006) requires state agencies to prefer food products grown in Massachusetts or products produced using products grown in the commonwealth.
- The Energize Your Meeting program in Washington (more information below) contracts with specific caterers who will adhere to the guidelines of the policy (58).

What to purchase

Policies in this category provide limitations or encouragements that influence the ingredients purchased by agencies. This may be supply-side, affecting the availability of healthier foods, or demand-side, setting up incentives or regulating what is purchased to supply kitchens. Policies in this category and in the “What to serve” category inherently rely on a definition of healthy food or a definition of unhealthy food. These definitions may be comprehensive or rely on only incremental change.

- Norway established a "Nutritional Council" to examine the best nutritional evidence and assess their best economic policies (28). A similar "Council" could be instituted for statewide purchasing for state institutions.
- Santa Clara County, CA, Healthy Food Policy: The county enacted a policy which mandates nutrition standards for vending machine beverages and snacks in County buildings as well as nutrition standards for purchasing or providing food at county sponsored events or meetings. On September 7, 2005, the Santa Clara County Board of Supervisors adopted the policy and they included an assessment of the policy implementation in the final briefing (3).
- Kaiser Permanente's food policy for in-house foods purchasing includes a vision to promote health for their employees, patients and guests and to promote farmers by purchasing locally grown food and if possible without pesticides or hormones added (34).
- New York City's food procurement standards provide relatively proscriptive guidelines that follow USDA and Institute of Medicine (IOM) recommendations. These standards will be highlighted below.
- Louisiana (SB146 2005) is an example of simple restrictions, focusing on some beverages and food items in public schools during specific time periods.
- West Virginia (HB2816/SB416 2005) is an example of (less comprehensive, low extent) legislation that merely "encourages" healthy foods (and only in vending machines).
- Economic policies that influence the price and availability (i.e. supply) of food produced for purchase in the larger market.
 - Norway encourages low prices for food grain, skimmed and low fat milk, vegetables, and potatoes, and higher prices for sugar, butter, and margarine. They regulate food processing and labeling and set consumer and producer price and income subsidies jointly in nutritionally justifiable ways. Between 1975 and 1995

Norway successfully reversed the population shift towards high fat, energy-dense diets. Consumption of saturated fat fell by 18% and blood cholesterol by 10%, and mortality from coronary heart disease was halved among middle-aged men. Food subsidies, price manipulation, retail regulations, clear nutrition labeling, and education focused on individuals were used (28).

- Rudd Center for Food Policy and Obesity: Encourages the redistribution of food subsidies towards a nutritional end (63).
- IOTF: Encourage the use of sugars, oils and fat for biofuels to increase demand for our current supply of these unhealthy food products (28).
- The US General Services Administration recently announced a new effort, in collaboration with the White House Offices of Management and Budget and Health Reform and the USDA, that changed the GSA food service contract template to promote “healthier and more sustainable food options” in federal facilities. According to the press release, “The new wellness factors and nutritional requirements include the use of healthy cooking techniques in food preparation to minimize trans fatty acids and added salt, menu variety to address special dietary needs, programs to educate patrons on product lines available and proper portion sizes, use of whole grains and other healthy food items, and use of technology and other services to promote wellness (18).” In addition, local and organic sources will be emphasized, along with recycling, composting, and other ecological concerns. The first agency to use the new template will be the State Department's Washington DC headquarters, which will attempt to integrate a farmer's market into its food offerings.

What to serve

Policies may focus on what is ultimately served to consumers rather than what is purchased. For ready-to-consume items, there is little difference between regulation on what to purchase and regulation of what to serve. What to serve policies could be further augmented with public information in the form of nutrition labeling or healthy eating scores. These tools may be proscriptive or may represent desired steps towards healthier food.

- New York City's food procurement standards address both purchasing and serving so that the meals ultimately served are healthier despite sourcing that may not meet the

purchasing standards. This allows agencies to accept and incorporate donations and Federal food allotments.

- Energize your Meetings Program: Washington Wellness, the state employees' wellness program, General Administration and Department of Health developed guidelines for meals and snacks that are served at DOH events and meetings. The guidelines include such things as offering lean meats, vegetarian options and water or unsweetened tea instead of sugar sweetened beverages. The State Attorney General's office has adapted the whole policy, and other agencies are considering it or have incrementally adapted portions. The guidelines allow flexibility through different levels of "stars" or steps of healthy food and beverage provision.
- A number of NGOs, including Center for Science in the Public Interest, IOTF, and the Rudd Center for Food Policy and Obesity, recommend removing Food of Low Nutritional Value from schools (e.g. soda and junk foods). Several states have begun to regulate competitive foods in schools, as seen below.
- In response to state law (State Code 256.7(29), 2008), Iowa schools set up standards of "better choices" for foods and beverages that appear to be less complete and less proscriptive than the USDA (and NYC) standards (29). Indiana has similar standards for schools (Indiana Senate Enrolled Act 111, 2006). More information about these states appears below. While not as "healthy" as other standards, these represents steps towards improving the nutritional content of offered food.
- Massachusetts (SB1665 2003, not passed) would have required all vending machines in state owned buildings to provide healthy snacks and alternatives that meet determined guidelines.
- Oregon (SB662 2005) prohibited school districts from selling vending machine food and drink that did not meet the State Board of Education standards, and required the board to adopt standards for such food and drink.
- North Carolina (SB961 2005) required statewide nutrition standards for vending items sold in public schools.

Pledges from food providers for state agencies

This refers to less coercive measures to influence what is purchased and served in institutional settings, and reflects public information provision at two levels: informing purchasers about how to progress towards healthier food provision and informing stakeholders about agency progress in doing so (itself a form of “naming and shaming”). Pledges and other information-related campaigns give individual agencies discretion in pursuing healthy eating goals that are nominally self-initiated but certainly influenced by normative pressures. They represent information directed at consumers (those who would go to the cafeterias, etc.) and other stakeholders, including the general voting public. Such programs might be based on per item nutrition scoring or on cafeteria audits (such one promoted by the Harvard School of Public Health) to provide a ready measurement of progress.

- England's Healthy Catering commitments: "Since 2008, the Agency has been working with more than 40 major UK caterers to provide healthier choices for their customers when eating out (44)." While this applies to restaurants and such it also applies to workplace caterers and 2 of the UK's largest catering suppliers. Each company includes their activity in procurement, menu planning, kitchen practice, and consumer information. The commitments provide an overview of what each company is doing to support the Agency's priorities to: reduce salt, reduce saturated fat, reduce energy intake, promote healthier options and to provide consumers with more information. These commitments are updated once a year, when each company sets out the progress it has made and the plans for the following year.

Nutrition education and labeling

Policies in this category focus on the demand side, attempting to change consumer preferences. Therefore, they represent the public information tool of government. While we could find no examples of menu labeling specific to institutional settings, a number of jurisdictions have implemented menu labeling regulations.

- Seattle & King County: Nutrition labeling regulation requires some chain food restaurants to provide calorie, saturated fat, carbohydrate and sodium information to customers. Only calorie information is required on menu boards.

- New York City: The regulations require food-service establishments, which are part of a chain of 15 or more restaurants nationally, to list calories for standard menu items on menu boards, menus, or food item display tags.
- Many other states have passed menu labeling laws in order to fight obesity including Oregon, Massachusetts, Maine and California. Some are not in effect yet and will be phased in over time. CSPI has more on menu labeling (10).
- There is some concern that nutrition labels are confusing to consumers or that focusing only on calories may have adverse effects. Thus, moving to an overall nutrition score (perhaps based on the Harvard system described below) or to a stoplight system (green for “healthy”, red for “unhealthy”, yellow for in-between) might help consumers make better decisions and promote demand for healthy food. Such a system might help agency decision makers make better procurement choices without proscriptive standards. Consensus on a nutrition scoring system might be difficult to obtain, while a stoplight system is a coarse mechanism in which nutrition outcomes would depend on the underlying definition of healthy food and level of “healthiness” needed to acquire a green light.

Methods for centralization of purchasing

Centralizing purchasing may provide efficiencies that outweigh any cost increases from purchasing healthier food items. Thus, it may be a way to more efficiently implement one of the other policy recommendations. Washington appears to have addressed this via the FUC, although participation is optional and the contract could be changed to implement some of the proposals highlighted here, including incentives for local producers, standards of acceptable and unacceptable items, etc. Many of the efforts in this category are also supply-side supports (see the Whom to purchase from section above).

- Montana: Normal purchasing procedures in Montana require delegation and competitive bid procedures for purchases. Now the law removes those requirements for purchasing fresh fruits and vegetables.
- Grow Montana: Recommends the creation of a centralized purchasing hub for major cities that would increase government purchasing power, and decrease waste in the delivery process to government institutions.

- Montana: A program called Cooperative Bid was instituted in 1980. It enables all food purchasing in schools to be done cooperatively giving a discount, and convenient delivery to schools. Two Cooperative Bids happen per year and schools are not required to take part.
- USDA Commodities program: Congress buys the basic necessary foods needed by schools for the school lunch program and other emergency feeding programs. Currently only staple products are used. Modifying this program might enable healthier food purchasing and distribution.
- USDA Fresh Fruit and Vegetable program: Started in 2002. Funding has been increased since then, but the program includes only schools with high proportions of students in the School Lunch program.
- UK: The London Development Agency plans to establish a sustainable food distribution hub to supply independent food retailers and restaurants.

Details of Policies

Summary of "healthy foods" definitions

Many but not all definitions of healthy food in the policies summarized in this document are based on government-sponsored research or publications. For example, under *FDA* regulations (60) according to the Washington State Nutrition and Physical Activity Plan, a label may say “healthy” if the unprocessed food is low in fat and saturated fat, has a limited amount of sodium and cholesterol and provides at least 10 percent of one or more of vitamin A, vitamin C, iron, calcium, protein, and fiber (for single-item foods) (60). The *USDA* has created the Daily Food Intake Pattern which identifies the types and amounts of foods that are recommended to be eaten each day and that meet specific nutritional goals (Federal Register Notice, vol. 68, no. 176, p. 53536). This is presumably based on the *Dietary Guidelines* published in collaboration with the US Department of Health and Human Services (USDHHS & USDA 2005). A third authoritative definition is the *Dietary Reference Intakes* (27) published by the Institute of Medicine, part of the National Institutes of Health. As is, these standards may not fully inform a purchaser or cafeteria manager about what to

purchase and serve, and so some of the policies below may be seen as translating these high-level policies into day-to-day operational procedures.

A national nongovernmental organization, the Access to Healthy Foods Coalition (64) determines which foods are healthy or healthier based on the 2005 USDA Dietary Guidelines for Americans, which directly links to the food guide pyramid, a nationally recognized system. Access then provides an abstract definition for healthy foods: A healthy food is a plant or animal product that provides essential nutrients and energy to sustain growth, health and life while satiating hunger. Healthy foods are usually fresh or minimally processed foods, naturally dense in nutrients, that when eaten in moderation and in combination with other foods, sustain growth, repair and maintain vital processes, promote longevity, reduce disease, and strengthen and maintain the body and its functions. Healthy foods do not contain ingredients that contribute to disease or impede recovery when consumed at normal levels (60). Note that applying this definition would be a less comprehensive and less proscriptive policy requiring local interpretation and operationalization.

The Harvard School of Public Health has created its own Healthy Eating Pyramid as a guide to a definition of healthy food (23). This definition claims to be more up-to-date and science-based (and less influenced by the food industry) than the Dietary Guidelines. It directly challenges American lifestyle problems: too much red meat and refined grains and starches, with too little exercise. The Harvard Pyramid relies on tips for what to eat and what to avoid in general, rather than focusing on serving sizes and recommended daily allowances. As one heading says, “Forget about Numbers and Focus on Quality.” This lack of specificity would require some translation to form the procedures for agency procurement and food service. Harvard has created a Alternate Healthy Eating Index that scores diets on a range from 0 (basically ignores the guidelines) to 100 (follows the guidelines perfectly). Comparing diets scored on this system and the similar USDA Healthy Eating Index (based on the Food Guide Pyramid and the 1995 Dietary Guidelines) and health outcomes, two large studies showed that people who scored at the highest level of the Harvard Index had higher risk reduction than people who scored at the highest level of the USDA Index (37). Harvard has compiled recipes, from Mollie Katzen, Ming Tsai, the Culinary Institute of America, and Harvard's

Dining Services, for both home and food service use. In collaboration with Brigham and Women's Hospital, the School of Public Health also created a guide to Delicious & Nutritious Food Choices for Conferences (24). Finally, as an aid toward applying their Pyramid, the Harvard Nutrition Source website links to a Cafeteria Audit published by the National Business Group on Health, basically a list of healthy food options and other policies that can be used to establish a health score for a particular agency or workplace (25).

New York City's food standards are an example of operationally defining healthy foods in a way that can be seen as an interpretation, specific enough for public agency cafeterias and procurers to follow, of the Dietary Guidelines or DRIs (39). They apply to all food purchased or served by a City agency, including contractors providing meals to City-funded programs & food distributed to emergency food providers (soup kitchens, pantries). The standards exclude vending machines, independent concessionaires who sell food “at City programs”, child care services providers (which are under different regulations), home-based childcare providers, and food for disaster response. There are 3 sets of linked standards:

- 1: Standards for purchased food
- 2: Standards for meals & snack served
- 3: Agency- & population-specific standards & exceptions (39)

Sections 1 and 2 overlap to ensure that “people who eat a few items of each meal will have healthy options” (something on the plate is good for them) and that whole meals are healthier. Section 2, for example, ensures that even if an agency acquires food that does not meet Section 1 (i.e. federally provided) the final product is healthier. Section 3 supersedes the first two so that populations with special requirements (kids, seniors, medical patients, prisoners) are not impinged upon negatively. Some transitioning is allowed, particularly for sodium and special diet populations, to provide for necessary flexibility and avoid alienating groups over application of the standards. The NYC (and MA) standards are in Appendix H with comparisons to the Dietary Guidelines and/or Dietary Reference Intakes. As seen in the Appendix, these standards generally meet or exceed the national standards, but not completely. As of this writing there is no evaluation of this policy per se, nor was any information on agency compliance available.

Massachusetts defines healthy foods as "Foods of High Nutritional Value" in the Massachusetts a la Carte Food & Beverage Standards to Promote a Healthier School Environment. School Food and Beverage Standards specifically states that the "foods of high nutritional value will naturally have a significant amount (greater than 10% of RDA) of at least one of the following: calcium, vitamin C, vitamin A, iron or fiber. These foods include complex carbohydrates and/or lean protein sources that are low in total fat and saturated fat. Water is a nutrient on its own that should be included as an essential part of a healthy diet." Note that this appears to follow the FDA definition of "healthy". The standards follow the national Action For Healthy Kids coalition guidelines for competitive foods in schools (1). This school environment policy document preceded the larger and more comprehensive food purchasing policy called the Massachusetts State Agency Food Standards. The MSAFS imported the NYC standards with minor changes highlighted in Appendix H.

Indiana (SB111 2006) requires at least half of all food and beverage items for sale at schools to be "better choice" items. This policy limits unhealthy food in a partial step towards healthy food procurement, with standards that appear to be less stringent than the USDA or IOM nutrition standards. The definitions address specific beverage types common to schools, fats and sugars in food items, and serving sizes of particular items, rather than providing a comprehensive definition as in the Dietary Guidelines (or in NYC). Thus, as appears common in schools, the standards are not fully in compliance with USDA guidelines and thus allowed foods may be less healthy than those offered in Federally-supported school breakfasts and lunches. *Iowa* (via State Board of Education Rule 281 IAC 58.9-11, in 2009) has a similar set of permitted and prohibited foods, with phasing in of tighter restrictions. As seen in Appendix G, the two state standards differ not only in proscriptiveness (e.g., 50% of items versus overall) but also in the comprehensiveness of the standards and their treatment of items such as sports drinks and sugar.

Rather than provide proscriptive standards for all meals and snacks served or foods purchases, the Washington State Department of Health has published suggestions to *Energize Your Meetings*. These guidelines include a list of recommended healthy foods (and "not recommended" unhealthy foods) that attempt to move catered agency meetings away from

the usual pastries, sandwich bars with white bread and cold cuts, or meat with gravy—and suggest breaks and physical activity to further energize participants. The suggestions were based on guidelines from Public Health Seattle & King County (42) and the University of Minnesota School of Public Health (51). The former are based on the Dietary Guidelines, emphasizing low fats, whole grains, fruits and vegetables, and minimizing added sweeteners and salt, while also promoting food variety (vegetarian options), local sourcing, organics, and recycling. The Minnesota recommendations are also based on the Dietary Guidelines, and further suggest serving locally produced foods and not serving snacks at meetings.

Santa Clara County Policy: Within California, a few counties adopted a healthy vending machine policy with in their offices. The difference in Santa Clara county is that in addition to setting up required nutrition standards for vending machine beverages and snacks in county buildings they also devised nutrition standards for purchasing or providing food at county-sponsored events or meetings. One year after implementing it they evaluated the policy to find what was working and what needed to be improved with this policy. The published results were reported to stakeholders and their findings are at the web address above. Details of their nutritional standards are below (3).

Specifically, the vending policy requires:

- Not more than 35% calories from fat with the exception of nuts and seeds; snack mixes and other foods of which nuts are a part must meet the 35% standards
- Not more than 10% calories from saturated fat
- Does not contain trans fats added during processing (hydrogenated oils and partially hydrogenated oils)
- Not more than 35% total weight from sugar and caloric sweeteners with the exception of fruits and vegetables that have not been processed with added sweeteners and fats
- Not more than 360 mg of sodium per serving.

European Food Information Council: The following was taken from a discussion of the term “healthy foods” by Susan Alderman, United Kingdom (2). Nutrition professionals avoid using the term “healthy foods” because whether or not a food is healthy depends on what our

nutritional needs are, how much and how often we eat, and what else is in the diet. No single food provides all the essential nutrients. A healthy diet includes appropriate portion sizes of a variety of different foods (vegetables, whole grains, fruits, dairy products, legumes, lean meats, poultry and fish and enough fluids like water). A healthy diet reduces the risk for obesity and chronic diseases such as heart disease, stroke, and diabetes. Healthy eating and lifestyle are important to our feeling of well-being and enjoyment of life (15).

Summary of other policy recommendations

Washington State's Attempts at Changing Food Policy: WA SB 5436 (2004) required all districts in the state to establish a policy on nutrition and health by August of 2005, with the association of school districts providing guidance and a model policy along with workshops to push adaptation. According to the UW Center for Public Health Nutrition (2009), all 93 districts developed some sort of policy, but the majority were broad but weak, with little enforceability. The CPHN report concluded that "Washington Senate Bill 5436 did not result in robust policies in many school districts." Many of the policies appeared to focus on sodas, resulting in Johnson et al's finding of variability in school policies regarding sugar-sweetened beverages, which were associated with varied exposure to such beverages and varying levels of consumption (32).

Kaiser Permanente's Comprehensive Food Policy was developed to address the entire food environment at the medical center in order to improve the health of employees, patients and guests. It is a nice model for small agencies with centralized food purchasing to follow because they have included many aspects of barriers to access of healthy food. With the inclusion of farm-to-hospital they are addressing social and environmental aspects of food that are often overlooked in policies that merely address the financial cost of food. This policy may not have measurable outcomes of health measures such as obesity but the outcomes such as pounds of fruits and vegetables sold at the farmers market may be a measure of the increased consumption of fruits and vegetables by those who come to the medical center (34).

King County Menu Labeling: The King County Board of Health's nutrition labeling regulation requires some chain food restaurants permitted by Public Health to provide

calorie, saturated fat, carbohydrate and sodium information to customers. Only calorie information is required on menu boards of quick-service restaurants with all other information available at the point of ordering in a flyer, pamphlet, or other approved method. Full-service restaurants must include all information on menus or other approved alternative method (42).

New York City Menu Labeling: The regulations require food-service establishments, which are part of a chain of 15 or more restaurants nationally, to list calories for standard menu items on menu boards, menus, or food item display tags. Font and format used for calorie information must be at least as prominent in size as is used for the name or price of the menu item. Details of the NYC law can be found at www.nyc.gov/health (10).

UK Catering commitments: Examples at

<http://www.food.gov.uk/healthiereating/healthycatering/cateringbusiness/commitments>

In addition to the information in the Appendices, we have a compilation of related bills and policies available on request.

Possible Recommendations

What policy steps could be taken in Washington State?

In terms of Government agencies, Washington State could adopt national nutrition standards for food purchasing or the Governor could formulate an executive order, similar to what has been done in New York City and Massachusetts.

The Umbrella contract offers several possibilities for improving the nutritional quality of food purchases.

- Washington State could institute non-competitive bidding for fresh and local fruits and vegetables similar to what has been done in Montana. This would have the benefit of improving the market for locally grown produce.
- Washington State could also institute weighted bidding, a means of emphasizing food's nutritional profiles and giving "more weight" to healthier options and less weight to minimally nutritious foods during the negotiating of the Umbrella contract. This type of bidding would take into account the health costs of low-nutrient foods.
- Nutrition professionals could work with General Administration to establish healthier specifications for the foods purchased as part of the contract.

Appendices

Appendix A: A list of all individuals contacted for this project

Appendix B: A complete list of all unhealthy foods found in the 2009 fourth quarter procurement document

Appendix C: Questions for New York City key informant interview

Appendix D: Questions for Mr. Shannon McGuire

Appendix E: Questions for State Agencies

Appendix F: The policy context: State Indicator Report on Fruits and Vegetables, 2009

Appendix G: Iowa and Indiana healthy food standards

Appendix H: A Comparison of New York and Massachusetts State Agency Food Standards

Appendix A: List of Individuals Contacted For this Project

PH Contacts	Title	Student Contact	Method of Contact	Status	Availability
Ana Garcia	NYC testifier	Elena & Nelly	email	responded via email to both students	
Erin Hamilton DHHS	Department of Health and Human Services	Jenni	e-mail		
Janice Campbell-Aikens	Dietician for DSHS	Jenni	e-mail	responded	
Jay Jackson	Department of Corrections	Barb	phone/email	multiple phone/email conversations	available for questions
Maria Bettencourt	Director of Wellness Division of MA Dept of PH	Nelly			
Maxine Hoepfner	Food manager, DSHS	Jenni	e-mail	responded	
Shanon McQuire	Food Umbrella Contract	Kara	phone/email	multiple phone/email conversations	available for questions
Sheryl Olson	Montana representative	Group C			
Theresa Stanton-Grose	DVA Food Manager at Port Orchard	Heather	spoke with 2/1/2010, emailed 2/2/2010	phone conversation 2/1/2010, questions emailed 2/2/2010	correspondent has not replied to follow-up questions
Tish Greenfield	Department of Veterans Affairs	Heather	emailed 2/2/2010	phone conversation 2/1/2010, questions emailed 2/2/2010	correspondent has not replied to follow-up questions
Mike McGinn	Seattle Mayor	Dara	phone conversation		
Mike O'Brien	Councilman	Dara	phone		

			conversation		
Robin Arnold	Policy Office Director for Governor Chris Gregoire	Dara	phone conversation		
Ellen J. Fried	legal consultant for Center for Science in the Public interest	Group C	email correspondence		
Dr. Margo Wootan	Director of Nutrition Policy at the Center for Science in the Public Interest	Group C	email correspondence		
James E. Tillotson	professor of Food Policy and International Business at the Friedman School of Nutrition Science and Policy at Tufts University	Group C	email correspondence		
Parke E. Wilde	associate professor at the Friedman School of Nutrition Science and Policy at Tufts University	Group C	email correspondence		
Deane Edelman	Nutrition Project Staff at the Center for Science in the Public Interest	Group C	email correspondence		
Anonymous	New York Public Health	Nelly	Phone conversation		prefers to remain anonymous

Appendix B: Unhealthy food items

Foods included in the calculation to determine the percent of money spent on food on unhealthy foods.

- brownie mix
- cake mix
- candy
- cheesecake
- chips
- churros
- cobbler
- cocoa powder
- cookie
- cookie dough
- cracker
- danish
- donut
- éclair
- fruit roll-up
- ice cream
- marshmallows
- mousse
- pie
- pop tarts
- sherbet
- soft drinks
- soft serve
- syrup
- whipped cream/whipped topping

Appendix C: Script for New York City key informant interview

1. Concurrent to Executive Order 509 were any studies set up to collect metrics measuring the impacts of this policy change? If yes, what metrics (health costs, worker productivity, food prices) are you collecting? What are the preliminary findings since June 2009?
2. What are the expected outcomes of EO 509?
3. What major events, social/political factors or evidence led to the EO?
4. Assuming your objective is the same as ours (to reduce obesity rates in the State), what alternatives were considered?
5. Does the Massachusetts universal HC mandate relate to this EO?
6. Have there been evident market effects (price of healthy foods)?
7. Has the business sector followed in the State's example?
8. How many people has the EO impacted in terms of their access to healthier foods?
9. What data came from the RFR pilot in public hospitals? What was the structure for this pilot?
10. Who was represented in the AD HOC State agency workgroup?
11. What was and is the public opinion of the EO?

Appendix D: Questions sent of Shannon McGuire

Answers are provided in italics

1. What Washington State agencies purchase food? *The primary purchasers for food are DSHS, DOC, DVA and School for the Deaf & Blind.*
2. How much money is spent each year on food by these agencies? *Based on the usage reported by the vendors for 2008, a total amount of approximately 25 million dollars worth of food purchases were made by the above agencies on Contract #06006.*
3. Who is fed by food purchased by Washington state agencies? How many people are fed by food purchased by the state of Washington? Are these data available in the form of number of people fed daily, monthly or yearly? *You would need to contact the State Agencies and their facilities for this information.*
4. Does the state of Washington have any other contracts related to food procurement besides the Food Umbrella Contract, Catering Services (Energize your Meetings), and Food Catering Services for WSP? *Food Service Disposables is included under the Food Umbrella Contract and I did not include any of the sales in the previous information I supplied.*
5. Who is responsible for purchasing (or who ultimately places the food order) for the DSHS, Veterans Affairs, Department of Corrections, School for the Deaf and Blind, State Patrol (if other than Food Catering Services for WSP), and any other state agencies who may purchase under Washington State Food Contracts? Do these agencies purchase on a facility-by-facility basis? *Again you would need to contact the State Agencies and each facility to probably get this information.*
6. Is all procurement (for example for each prison) approved by an administrator or individual at the DSHS, D.O.C., etc, or by someone at the General Administration Office? If so, do you have contact information for any of these people? *GA only handles the administration of the contract and is not involved in the actual ordering. You may be able to contact Erin Hamilton at DSHS (360) 664-6142, Jay Jackson at DOC (360) 725-9165 or Tish Greenfield at DVA (360) 725-2206.*
7. Are agencies purchasing under these contracts restricted to certain guidelines for foods approved for purchase (low-fat milk and cheese, lean meats, etc)? *There are not any restrictions through my office but each agency I'm sure has guidelines and nutritionals they need to follow.*
8. Is there an archived resource of food procurement for the State? *If so, is there a way we can access procurement records to determine who within the state is purchasing under state contracts, what they are purchasing, and how much do they spend?*

9. Can agencies choose anything offered by the vendors or are they restricted to only what the state purchases and then offers to the agencies? *They may choose other items from a contracted vendor however they are not to cross over into another State Contract.*

10. Does the state offer the same options to all the agencies, or does it vary depending on the agency? *Any authorized purchaser which is a State Agency is to be offered the same pricing and service and all vendors must follow the Terms & Conditions stipulated in the contract.*

Appendix E: Questions submitted to members of the DOC, DSHS and DVA.

1. How much money is spent for the by your agency each year?
 - a. Can you provide a break-down of the food budget?
 - b. We would be interested in knowing how much is spent on food items however, if you had it broken down by vendors that would be helpful. (A top 10 purchased foods would be helpful.)
 - i. one of our groups would be interested in any archived food procurement documents that you could provide. Would it be possible to have invoices from previous purchases?
 - c. Is there someone you can put us in touch with that would have further information on the break-down of the food purchased?
2. Who is being fed? Is it just those residing at the facility or are employees that work for the agency also being fed by this money?
 - a. Ultimately, can you tell me how much is spent per plate of food served?
 - b. Can you tell me who to speak with for that kind of information?
 - c. Are there different options or more money available (per person) for food purchased for the employees? (i.e healthier foods for employees vs those that live there?)
 - d. Are purchases within your agency restricted to certain guidelines for foods approved for purchase (low-fat milk and cheese, lean meats, etc)?
3. Who is ultimately responsible for purchasing? Is it on a facility by facility basis?
 - a. Can you provide contact information to dietitians and food managers that serve as the nutrition consult?
 - b. What nutritional guidelines are in place for purchases made by dietitians and food managers?
 - c. How are these guidelines enforced?
 - d. How often do dietitians and/or food managers verify adherence to guidelines?
4. From your perspective what do you think the barriers would be to having state regulation of food procurement?
5. In other cities and countries, certain "healthy food" guidelines are being used to fight the obesity epidemic. They involve requiring foods, such as milk, to be low fat, etc. Would you find this kind of regulation problematic? Can you think of problems that your facility might encounter with implementation?
6. Are there any particular food or beverage items that your agency would like access to but cannot purchase under the current contract?
7. In your opinion what changes would you make to the food that your beneficiaries receive under the current contract?

Appendix F: The policy context.

State Indicator Report on Fruits and Vegetables, 2009

State	% of Census tracts with Healthy Food Retailers within 1/2 mile of boundary	State-Level Healthier Food Retail Policies	Farmers Markets per 100,000	% of Farmers Markets that accept EBT	% of Farmers Markets that accept WIC FMNP Coupons	% of Middle Schools and High Schools that offer F&V as Competitive Foods	State-Level Farm to School Policies	% of Cropland Acreage Harvested for F&V	State Food Policy Council	Number of Local Food Policy Councils
U.S. National	72.0	8	1.7	7.6	28.2	20.9*	21	2.5	20	59
Alabama	67.2	No	2.4	1.8	39.1	11.6	No	1.2	No	1
Alaska	60.8	No	3.5	0	50.0	13.2	Pending	4.0	No	0
Arizona	70.1	No	1.0	18.2	18.2	18.4	No	18.9	Yes	1
Arkansas	61.7	No	1.7	0	8.3	8.8	No	0.2	Yes	0
California	83.5	Yes	1.4	6.6	33.6	32.1	Yes	34.4	No	14
Colorado	70.0	No	2.1	12.4	0	26.6	Yes	1.7	Yes	8
Connecticut	69.6	No	3.5	8.9	21.1	27.8	Yes	10.8	Yes	2
Delaware	71.6	No	1.8	0	6.3	19.7	No	8.7	No	0
D.C.	82.4	Yes	3.9	21.7	56.5	0.0	No		NA	1
Florida	77.0	No	0.6	1.9	26.9	29.7	No	42.9	No	3
Georgia	70.4	No	0.2	0	16.7		Pending	4.3	No	2
Hawaii	80.7	No	5.7	15.1	0	7.7	Yes	27.6	No	0
Idaho	72.1	No	2.5	2.6	0	13.7	No	9.1	Yes	1
Illinois	70.8	Yes	1.5	0	20.5	27.7	Pending	0.3	Yes	2
Indiana	67.4	No	1.2	1.3	36.7	31.7	No	0.3	No	0
Iowa	63.6	No	7.5	49.6	68.8	19.5	Yes	0.1	Yes	0
Kansas	62.6	No	2.9	16.3	0	13.7	No	0.1	Yes	1

State	% of Census tracts with Healthy Food Retailers within 1/2 mile of boundary	State-Level Healthier Food Retail Policies	Farmers Markets per 100,000	% of Farmers Markets that accept EBT	% of Farmers Markets that accept WIC FMNP Coupons	% of Middle Schools and High Schools that offer F&V as Competitive Foods	State-Level Farm to School Policies	% of Cropland Acreage Harvested for F&V	State Food Policy Council	Number of Local Food Policy Councils
Kentucky	68.3	No	3.7	3.8	0	10.1	Yes	0.2	No	1
Louisiana	70.6	Yes	0.7	6.7	26.7		No	0.6	No	1
Maine	68.0	No	5.5	0	76.4	22.3	Yes	29.3	Yes	0
Maryland	76.6	No	1.6	0	82.4	27.9	Yes	3.0	No	0
Mass.	71.4	No	2.8	15.0	93.9	29.9	Yes	23.2	Yes	3
Michigan	66.5	Yes	1.6	3.1	22.7	39.0	Yes	4.5	Yes	1
Minnesota	63.6	No	1.5	5.1	38.0	18.0	Pending	1.3	No	1
Mississippi	66.9	No	1.4	0	2.4	9.4	No	0.8	No	0
Missouri	65.5	No	1.6	1.1	0	22.8	No	0.3	Yes	0
Montana	63.7	No	4.5	9.1	27.3	10.7	Yes	0.1	No	1
Nebraska	64.0	No	3.8	1.5	1.5	10.9	No	0.1	No	0
Nevada	77.4	Yes	1.1	0	0	20.1	No	2.2	No	0
New Hampshire	60.3	No	5.6	9.5	39.2	37.6	No	6.6	No	0
New Jersey	77.6	No	1.4	0.8	4.9	31.8	Pending	17.9	No	0
New Mexico	59.6	No	2.3	4.4	28.9		Yes	3.6	Yes	0
New York	83.4	Yes	2.2	0.7	1.0	35.7	Yes	7.2	Yes	2
N. Carolina	74.2	No	1.6	1.4	4.7	25.2	No	3.3	No	0
North Dakota	56.8	No	7.5	0	6.3	4.7	No	0.4	No	0
Ohio	62.1	No	1.3	0	4.9	36.3	Pending	0.6	Yes	1

State	% of Census tracts with Healthy Food Retailers within 1/2 mile of boundary	State-Level Healthier Food Retail Policies	Farmers Markets per 100,000	% of Farmers Markets that accept EBT	% of Farmers Markets that accept WIC FMNP Coupons	% of Middle Schools and High Schools that offer F&V as Competitive Foods	State-Level Farm to School Policies	% of Cropland Acreage Harvested for F&V	State Food Policy Council	Number of Local Food Policy Councils
Oklahoma	57.4	No	1.0	2.9	2.9	15.0	Yes	0.3	Yes	0
Oregon	78.5	No	2.4	23.1	48.4	15.3	Yes	7.7	Yes	4
Pennsylvania	69.7	Yes	1.3	9.9	62.1	30.2	Yes	2.6	No	0
Rhode Island	70.8	No	3.7	2.6	53.8	30.9	No	17.1	No	0
S. Carolina	68.3	No	2.1	22.8	80.4	22.1	Pending	2.9	Yes	0
South Dakota	55.7	No	1.9	0	6.7	7.9	No	0	No	0
Tennessee	68.0	No	1.0	0	9.2	14.7	Yes	0.8	No	2
Texas	70.7	No	0.4	0	34.6	28.3	Yes	0.9	No	0
Utah	73.2	No	1.1	19.4	3.2	24.9	No	1.4	Yes	0
Vermont	61.5	No	10.5	26.2	12.3	35.7	Yes	1.6	No	1
Virginia	76.6	No	1.5	2.6	15.7	26.7	Yes	1.8	Yes	1
Washington	76.4	No	1.5	14.3	54.1	17.7	Yes	14.9	No	2
West Virginia	69.7	Pending	3.2	3.4	70.7	4.5	No	1.4	No	0
Wisconsin	59.5	No	3.2	1.1	18.2	24.8	No	3.6	No	2
Wyoming	67.7	No	5.4	0	0	10.3	No	0.1	No	0
*Average percentage across participating states										

From the CDC , 2009 table of Fruits and Vegetable related policies by states.
http://www.fruitsandveggiesmatter.gov/health_professionals/data_policy.html

Appendix G: Indiana and Iowa healthy food standards - Beverages

		<p>Indiana SB111: At least fifty percent (50%) of the food items available for sale at a school or on school grounds must qualify as better choice foods and at least fifty percent (50%) of the beverage items available for sale at a school or on school grounds must qualify as better choice beverages (exceptions: school lunch/breakfast program, not accessible to students, after normal school hours, or part of fundraiser if not intended for student consumption during school day).</p>	<p>Iowa State Board of Education Rule 281 IAC 58.9-11 (2009) restrictions on the sale of a la carte, vending and regulated fundraising items (i.e. not from school lunch/breakfast program)</p>	
		better choice	not better choice	
		≥50% juice AND no added caloric sweetener	<50% juice or added caloric sweetener	
		low fat & fat free milk & substitutes	whole milk	
		OK		
		water/seltzer with no added caloric sweetener	Soft drinks, punch, iced tea, and coffee	
		≤20 oz		
beverages	fruit/veg-based			
	milk			
	isotonic beverages			
	other			
	all			

Appendix G: Indiana and Iowa healthy food standards - Food

food items	calories			Entrees: ≤400 cal; sides ≤200 cal		
	sodium			Entrees: ≤600mg (480 by 2014); sides ≤400mg (200 by 2014)		
	fat	≤30% calories from fat		≤35% calories from fat (excluding nuts, seeds, nut butters and reduced fat cheese)		
	saturated and trans fat	≤10% calories		≤10% calories (excluding reduced fat cheese)	>0.5mg trans fat p.s.	
	whole grain			50% of grains must be whole grain		
	sugar	added sugar ≤35% by weight		≤35% calories (excluding fruits and yogurts)		
	Max portions size for items with > 210 cal	potato chips, crackers, popcorn, cereal, trail mixes, nuts, seeds, dried fruit, and jerky: 1.75 oz				
		cookies and cereal bars: 2 oz				
		bakery items, including pastries, muffins, and donuts: 3 oz				
		frozen desserts, including ice cream: 3 fl oz				
nonfrozen yogurt: 8 oz						
entree items & side dish items, including french fries & onion rings, may not exceed the portion of the same entree item or side dish item that is served as part of the school lunch program or school breakfast program						

Appendix H: New York and Massachusetts State Agency Food Standards

Notes: p.s. = "per serving"; **Highlighted if different in MA**

	Element	Justification (a priori evidence) ¹
Food for purchase	Trans fats: consistent with NYC law (i.e. 0)	City-wide law takes precedence; USDA recommends "as low as possible"
	Sodium: all individual items ≤480mg; recommend low (≤140mg) or reduced (25% less) sodium	USDA and other recommendations; 140 is common definition of "low"
	Deep frying: nothing that requires frying	Fried foods are sources of trans fats
	Beverages: ≤ 25 cal/8 oz serving except for 100% juice or milk; require 100% juice	"The greater the consumption of foods containing large amounts of added sugars, the more difficult it is to consume enough nutrients without gaining weight. Consumption of added sugars provides calories while providing little, if any, of the essential nutrients" (USDHHS & USDA 2005, p. 36).
	Canned fruit: in own juice	
	Cereal: ≤ 215 mg sodium p.s.; recommend ≤10g sugar p.s. & ≥ 3 g fiber	
	Dairy: 1% or non-fat milk ≤ 100 cal/8 oz serving, any fluid milk substitute (e.g. soymilk) also ≤ 100 cal p.s., low fat or non-fat yogurt; recommend low fat cheese with ≤ 215 mg sodium p.s.	USDA recommends low- or non-fat dairy products
	Baked goods & pasta: baked goods ≤ 215 mg p.s.; recommend whole grain products, bread with ≥ 2 g fiber p.s. (recommends ≥3g fiber/serving)	USDA recommends at least half of grains should be whole grains
	Canned veggies: ≤ 290 mg sodium p.s. or no salt added; recommend replacing canned with fresh or frozen	"Any program for reducing the salt consumption of a population should concentrate primarily on reducing the salt used during food processing and on changes in food selection (e.g., more fresh, less processed items, less sodium-dense foods) and preparation" (USDHHS & USDA 2005, p. 40).
	Seafood: canned & frozen ≤ 290 mg sodium p.s. or no salt added	
	Canned meat: ≤ 480 mg sodium p.s.	
	Portioned items & convenience foods: ≤ 480 mg sodium p.s.	
Frozen whole meals: ≤800mg sodium p.s.		

1 USDA and IOM recommendations from USDHHS & USDA 2005 and/or IOM 2005

	Element	Justification (a priori evidence) ¹
	Condiments: bottles & jars: recommend low-fat mayo, reduced sodium soy sauce, low sodium catsup, & low-fat, -sodium, & -calorie salad dressings; individual packets: no limits	FDA recommendations for reducing discretionary calories.
	Meat: recommend extra lean beef & pork ($\leq 5\%$ fat), lean ground beef ($\leq 10\%$ fat), bacon ≤ 290 mg sodium p.s., sausage ≤ 480 mg sodium p.s.	"Extra Lean" = 100g of beef with < 5 g of fat, < 2 g of saturated fat, and < 95 mg of cholesterol. http://www.fsis.usda.gov/Factsheets/Beef from Farm to Table/index.asp , USDA Fact sheets: meat preparation, accessed 1/27/2010
Standards for meals & snacks serve	Daily requirements:	USDA (and IOM?) guidelines for 2000 cal diet as appropriate
	2000 calories	
	< 2300 mg sodium (< 2200 if < 19 yo., < 1500 if 51+)	USDA: 1779, IOM: 3800 mg for 19-50, 1300 for 50-70, & 1200 for 71+
	$\leq 30\%$ of calories from fat $< 10\%$ from saturated fat	USDA: 29%, IOM: 20-35% USDA: 7.8%, IOM: as low as possible
	> 28 g fiber	USDA: 31, IOM: 28
	10-35% of calories from protein	USDA: 18%, IOM: 10-35%
	& 45-65% from carbs	USDA: 55%, IOM: 45-65%
	< 300 mg cholesterol	USDA: 230, IOM: as low as possible
	4700mg potassium	USDA: varies with age, from 3000 for 1-3 year olds to 4700 for adolescents & adults, IOM: varies from 400mg for infants to 4700 mg for adults (5100 for lactating women)
	1000mg calcium	USDA: 1316, IOM: 1000
	> 8 mg iron (18mg if female)	USDA: 18, IOM (females 19-30): 18
	<u>By meal</u> : 25-30% of calories, sodium, & fiber should be from breakfast, 30-35% lunch, 30-35% dinner; recommend potassium, calcium, & iron proportional to calories served (i.e. same proportions as above) (Slightly different for the MA Dept of Education and the school lunch program.)	
	<u>Fruits & vegetables</u> : minimum 2 servings per meal for lunch & dinner, 5 servings total if serve 3 meals; recommend replacing canned with fresh or frozen	USDA: 9 servings (would include snacks)

	Element	Justification (a priori evidence) ¹
	<u>Beverages</u> : Water (tap if possible) available with all meals; recommend juice servings ≤8oz p.s.	(water has zero calories and is a necessary nutrient)
	Prep & service: no deep frying make standard serving containers such as plates, bowls and cups to allow for easier portioning of served food	Fried foods are sources of trans fats
	Snacks: 0g trans fat, foods on lists above, at least 2 items from different categories (dairy/milk substitute, fruits & vegetables, bread/grain, protein), beverages for adults ≤25 cal per 8oz serving (except 100% juice or milk); recommend water in addition to other beverages	
	Special occasions: healthy options & water available; recommend limiting special occasion meals & snacks (e.g. 1/month), sweets in moderation, adherence to usual meal beverage standards, eliminating all Foods of Minimal Nutritional Value	USDA decision on FMNV such as candies and soda water http://www.fns.usda.gov/cnd/menu/fmnav.htm
If serve majority children	Overall: recommend follow IOM DRI as appropriate	Institute of Medicine, Food & Nutrition Board's Dietary Reference Intakes (DRI)
	Milk: Kids 2+ get milk with ≤1% fat, kids 1-2 whole milk, flavored milk & milk substitutes ≤130 cal p.s.; recommend phase out flavored milk & substitutes	USDA: recommends fat-free or low fat for 2+. "Carbohydrate intakes of children need special considerations with regard to obtaining sufficient amounts of fiber, avoiding excessive amounts of calories from added sugars, and preventing dental caries" balanced against palatability-related benefits of a little sweetness (USDHHS & USDA 2005, p. 37).
	Juice: ≤6 oz /serving	
	Fiber: 4-19 years ≥25g/day, 1-4 years ≥19g/day	
	Potassium: recommend ≥3800 mg/day, ≥4500 if serving 9-13 year olds, ≥4700 if 14+	USDA: 1-3: 3000, 4-8: 3800, 9-13, 4500, 14+: 4700
Calcium: recommend ≥800 mg/day if serving 4-8 year olds, ≥1300 if 9+		

O t h e r e x c e p t i o n s	Seniors, general: recommend appropriate IOM DRI	
	Seniors, sodium: ≤ 1500 mg/day if majority 50+; recommend individual items ≤ 360 mg p.s.	See sodium standard above
	Corrections: <2200 cal for females, <2800 cal for males	
	Therapeutic care: standards do not apply to therapeutic diets	

[1] USDA and IOM recommendations from USDHHS & USDA 2005 and IOM 2005

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