

National Executive Summary

Centers for Disease Control and Prevention (CDC) – National Park Service (NPS)

Healthy Foods Evaluation

Fall 2011

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Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the National Park Service

BACKGROUND

The Centers for Disease Control and Prevention (CDC) – National Park Service (NPS) Healthy Foods Evaluation is a unique collaboration designed to provide baseline data that will inform upcoming NPS food policy, system and environment changes. In April 2011, as part of the Healthy Parks Healthy People US initiative, NPS Director Jon Jarvis announced a new service-wide Healthy and Sustainable Foods Strategy to “ensure access to healthy, sustainable and high-quality food at reasonable prices” and to serve as a model for state and local parks. NPS, a bureau within the Department of the Interior, manages 397 national parks, employs 22,000 staff, hosts 221,000 volunteers and offers meals to over 280 million visitors annually, making NPS a major employer and one of the largest tourist destinations and food providers in the US.

METHODS

CDC scientists adapted validated observational tools to evaluate access, availability, pricing and promotion of nutrition offerings and compiled tools to evaluate free plain drinking water access in national parks. During May 2011 these standardized tools and protocols were piloted in 11 national parks and in fall 2011, over 40 public health staff collected data in national parks across the US. Five evaluation tool modules with detailed protocols were used to collect data about the food environment as seen from the perspective of a typical consumer from multiple settings within parks: restaurants, stores, snack shops, beverage or food vending machines and free drinking water access points. Descriptive analyses, including frequencies, percentages and means \pm standard errors (SE, a measure of variance) were performed.

RESULTS

General

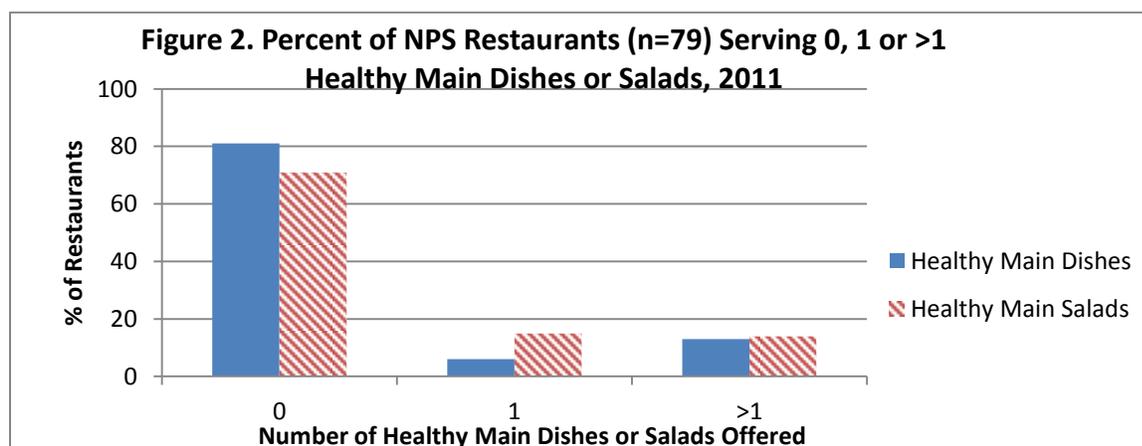
Overall, 47 national parks in 33 states, including all NPS regions, were surveyed (Figure 1). Among these, we assessed 79 restaurants, 55 snack shops, 30 stores, 83 beverage and 17 food vending machines, and 352 free drinking water access points.

Figure 1. National Park Service units surveyed in the CDC – NPS Healthy Foods Evaluation, 2011



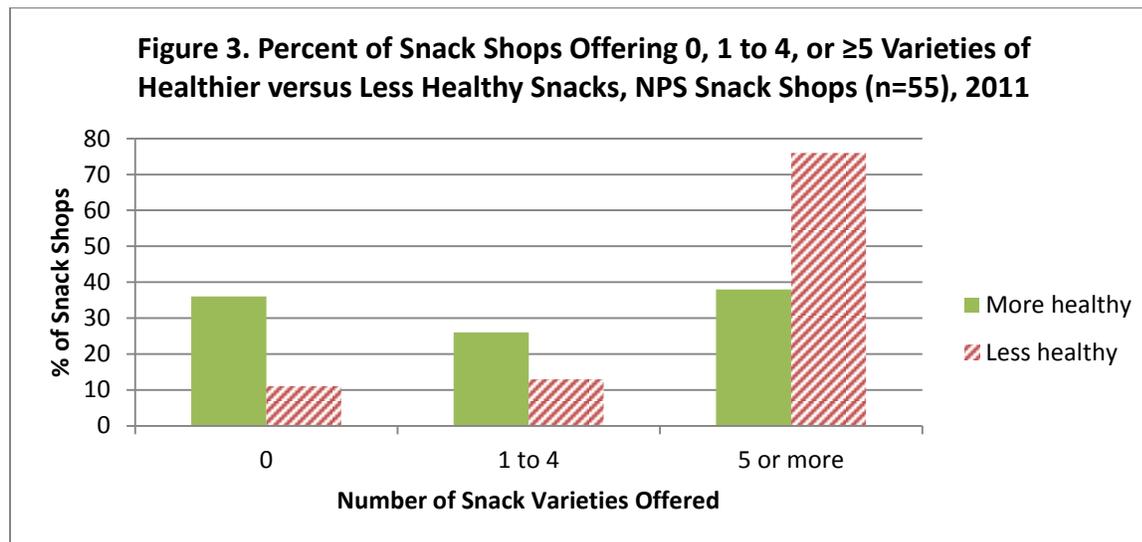
Restaurants

Seventy percent of national parks in our sample had restaurants. All 79 restaurants surveyed had main dishes listed on the menu; however, just 19% ($\pm 6\%$) of restaurant menus had at least one main dish that could be identified as healthy (as defined in the protocol - see full national summary report for definitions and protocols) (Figure 2). Main course salads were listed on 78% ($\pm 4\%$) of menus; among these, 38% ($\pm 8\%$) offered healthy main course salads and 31% ($\pm 8\%$) had low-fat salad dressings. Whole wheat/grain bread was available in just 44% ($\pm 7\%$) of restaurants. Overall, 63% of restaurants had a kid's menu; among these, 54% ($\pm 10\%$) featured at least one healthy main dish and 68% ($\pm 8\%$) had at least one healthy side dish. Low-fat or nonfat ($\leq 1\%$) plain milk was offered in just half (49% $\pm 9\%$) of restaurants with kids menus; 86% listed 100% juice as a drink option, but just 19% served a portion less than 6 ounces; 77% ($\pm 7\%$) offered free refills on less healthy drinks (e.g. soda, juice drink).



Venues Selling Snacks

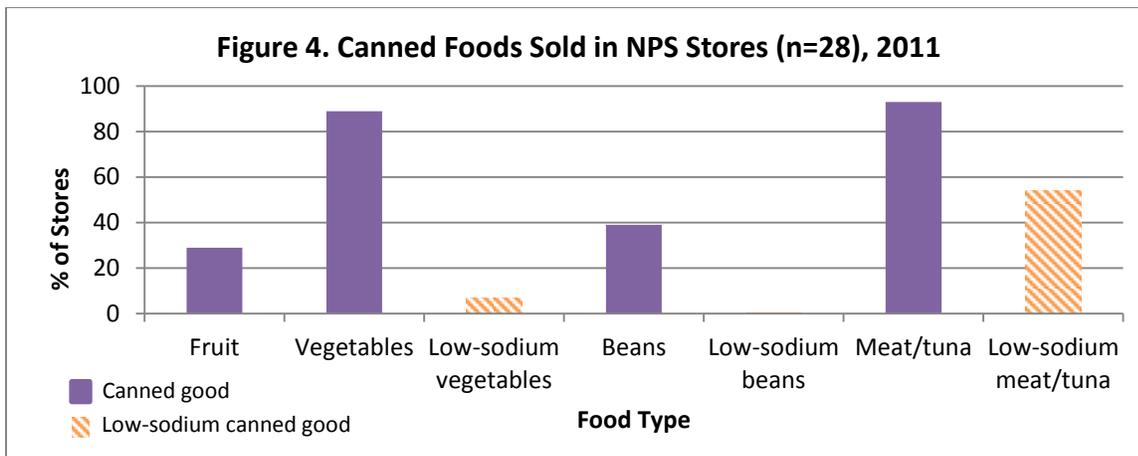
Twenty-four snack shops, 17 gift stores, 8 specialty shops (e.g., coffee or ice cream), 3 visitor centers and 3 food carts were surveyed. Among venues that sold beverages, nearly half (48%±6%) of venues sold 100% juice and 9% (±4%) sold low-fat milk or nonfat milk (≤1%), both of which are healthier drinks often served to children, while 82% (±5%) sold sugar-sweetened soda. Bottled plain drinking water was available in the majority of venues (73%±8%). Less healthy types of snacks were substantially more frequently available than healthier options (Figure 3). Fruit was offered at half (47%±6%) of venues, but non-fried vegetables were available at just 14% (±5%). Promotion of locally or sustainably-produced items was featured in 17% (±6%) and 9% (±3%) of venues, respectively.



Stores

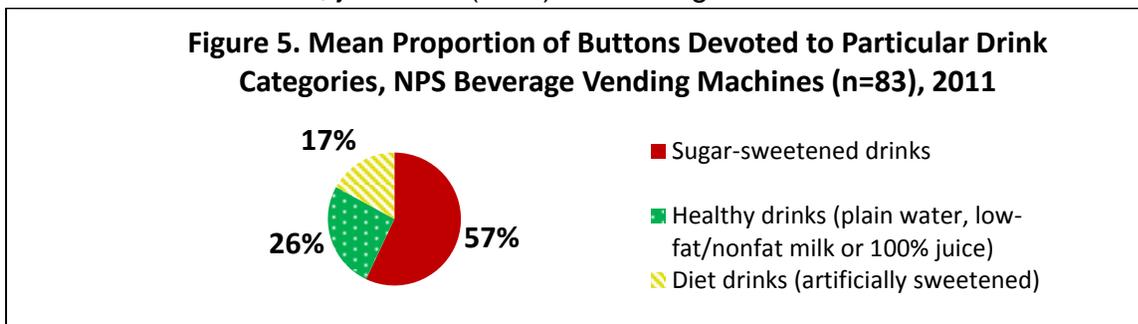
Fifteen percent of national parks in our sample had stores. Among the 30 stores surveyed, candy was frequently present at the point of purchase (77%±8%). Low-fat or nonfat (≤1%) milk was available at just 53% (±15%) of stores. Among stores that sold fresh vegetables (16 out of 30), an average of 8 types (±2) were sold in grocery and 1 (±0.2) type in convenience stores. Among stores selling canned foods (93%±5%), vegetables and meat/tuna were most common; low-sodium (≤200 mg/serving) options were infrequent (Figure 4).

Low-fat baked goods, such as low-fat bagels or English muffins were offered in nearly half of stores (43%±12%), whereas regular baked goods, such as muffins or danish were available in nearly twice as many stores (70%±11%). Among stores selling bread (25 out of 30), whole wheat bread was available in 72% of stores (±9%) yet white bread was available in nearly all (92%±6%). Cereal was sold in approximately three-quarters of stores (77%±10%); however, the average price of sugar-sweetened cereal (>7 grams sugar per serving) was considerably lower at \$0.62 (±\$0.05) per ounce than for lower-sugar healthier cereals (\$0.80±\$0.10).



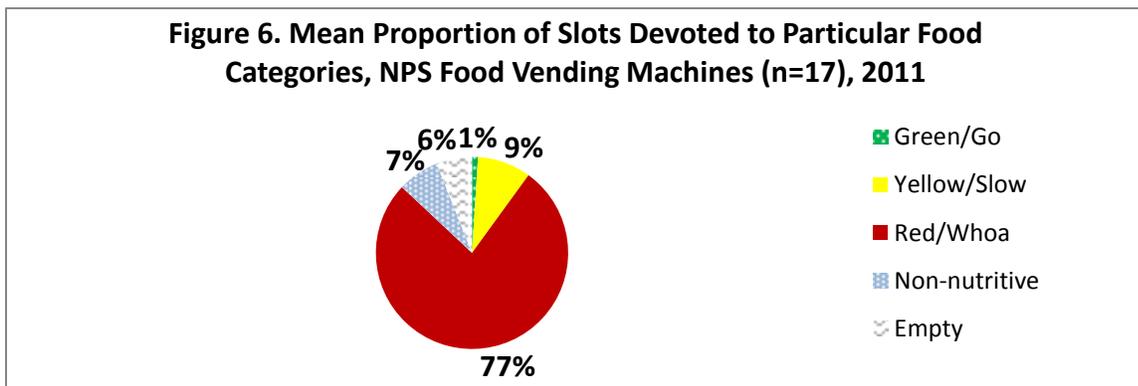
Beverage Vending Machines

Eighty-three beverage vending machines were evaluated in the 22 national parks with beverage vending machines. Over half (58%±9%) featured at least one less healthy food/beverage depiction on the machine’s exterior. On average, over half of machine selection buttons were devoted to sugar-sweetened drinks (Figure 5). A proposed NPS definition of a “healthier” beverage machine is one in which >50% of options are healthier or diet drinks; just 36% (±6%) of vending machines met these criteria.



Food Vending Machines

Seventeen food vending machines were surveyed in the 8 national parks with food vending machines. Foods were pre-assigned to categories by protocol; on average, NPS vending machines had <1 slot (±0.1) for green foods (eat anytime), 3 slots (±1) for yellow foods (eat sometimes), 26 slots (±3) for red foods (eat rarely) and 3 slots (±1) for non-nutritives (average total number of slots per machine=35±3) (Figure 6).



Drinking Water Sources

We surveyed 352 free plain drinking water sources in the 44 parks sampled with free drinking water access. Of these parks, 16% ($\pm 6\%$) displayed signs that promoted plain drinking water but no parks displayed signs promoting the health benefits of plain water intake. Most ($80\% \pm 6\%$) parks had visitors center staff that could provide directions to water sources; only 12% ($\pm 5\%$) of park maps indicated locations of drinking water sources. Overall, 90% ($\pm 3\%$) of water sources functioned; 83% ($\pm 4\%$) were rated by surveyors as being in satisfactory condition; 15% ($\pm 4\%$) had visible dirt/rust and 5% ($\pm 1\%$) were not draining or otherwise unappealing.

CONCLUSIONS

- Healthier food options were limited in national parks across all access points
 - $<20\%$ of restaurants had at least one identifiably healthy main dish available
 - One-third of snack shops failed to offer any healthy snack varieties
 - $>75\%$ of slots in food vending machines were devoted to high-calorie or high-fat snacks
- Healthier beverage options were generally available, but limited, in all national parks and were not well promoted
 - All restaurants served at least one healthy beverage, in addition to free plain water
 - Low-fat or nonfat milk, a healthy drink option recommended for children, was available in $<10\%$ of snack shops and 35% of restaurants
 - Nearly two-thirds of beverage vending machines had $>50\%$ of drink choices that were sugar-sweetened
 - $<20\%$ of parks used signs to promote drinking plain water
- Most national parks do not provide environments that promote the consumption of healthier foods and beverages
 - 5% of restaurants had signs promoting healthful eating
 - Icons identifying healthier items were used infrequently
 - Nutrition information was displayed in only 1 out of 79 restaurants surveyed
- Overall, eating and drinking offerings that were less healthy were more accessible and visibly promoted to visitors than healthier offerings.

Based on the data provided in this report, the National Park Service may increase healthy eating opportunities for its visitors, staff and volunteers by encouraging vendors to increase the availability and promotion of healthy food and beverages.