

## 2010 GAP ANALYSIS

# THE FRUIT AND VEGETABLE CONSUMPTION CHALLENGE: *How Federal Spending Falls Short of Addressing Public Health Needs*

## EXECUTIVE SUMMARY

This report was developed to determine the extent to which the federal government has made fruits and vegetables a national public health priority. In recent years, high-level federal officials from the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services (HHS) have extolled the health benefits of increased fruit and vegetable consumption and reiterated the need to commit additional federal resources to close the consumption gap that exists. Whether or not federal actions have been consistent with that rhetoric is an important public health question that can largely be answered through an examination of federal spending data. In other words, is the federal government walking the walk or just talking the talk?

In this report, we used food-consumption recommendations from the current *2005 Dietary Guidelines for Americans* (Dietary Guidelines), the risks of chronic illnesses such as coronary heart disease which are associated with inadequate fruit and vegetable consumption, and the economic costs of these diseases as frames of reference to analyze federal spending and the allocation of federal project resources.



**When it comes to fruit and vegetable spending priorities, is the federal government walking the walk or just talking the talk?**

## Findings and Conclusions

The review of federal spending and research projects in this report found that fruits and vegetables remain a low priority for the federal government. This low-priority status is inconsistent with the large fruit and vegetable consumption gap, the enormous economic costs and substantial health risks associated with that gap, and statements of high-level federal officials warning that the impact of diet-related diseases has reached a crisis in this country.

- ***There is an Ongoing Fruit and Vegetable Consumption Gap***

An analysis of the latest USDA food-use data shows that the average American consumes only 43% of the daily intake of fruit and only 57% of vegetables, as recommended in the Dietary Guidelines, an average of 51% of the recommended levels for fruits and vegetables combined. Fruit and vegetable consumption has remained relatively flat for the past 20 years.

- ***The Public Health and Economic Stakes Associated With the Fruit and Vegetable Consumption Gap Are Very High and Growing Rapidly***

An economic analysis in the report shows that the health care and other costs of inadequate fruit and vegetable consumption for just three diet-related, chronic diseases—coronary heart disease, stroke, and cancer—grew by 92% between Fiscal Year (FY) 1999 and FY 2008 and currently stands at \$56 billion a year.

- ***The Large USDA Fruit and Vegetable Spending Gap Parallels the Consumption Gap and Is Inconsistent with Dietary Guideline Priorities***

For this report, four types of USDA spending related to specific food groups were compiled and reviewed: subsidies provided through farm bills; nutrition assistance program spending; food and agricultural research; and the administration of programs benefitting specific food groups. The analysis

found that USDA spends more than twice the amount of its funds on the meat group, which comprises only 8% of the daily servings recommended in the Dietary Guidelines, than it spends on fruits and vegetables, which comprise 41% of the daily recommended food servings. USDA would have to more than double its spending for fruits and vegetables (by adding \$3.6 billion) to bring USDA food group spending in line with Dietary Guideline recommendations.

Fruits and vegetables receive only 9.9% of the subsidies authorized in the farm bill. Since the farm bill provides about 50% of all spending on food groups, reallocation of the farm bill subsidy budget offers a major potential source of increased funding for fruit and vegetable programs.

**In FY 2008, USDA, NIH, and the CDC spent about \$126 billion on activities related to food, agriculture, and public health. Less than 3% of those combined budgets was spent on programs and projects related directly to fruits and vegetables.**

• ***A Large Gap in Spending on Nutrition Education Reinforces the Fruit and Vegetable Consumption Gap***

USDA spending on nutrition education for low-income Americans, which promotes the consumption of fruits and vegetables, represents only 1.3% of total spending on nutrition assistance programs, despite the fact that the fruit and vegetable consumption gap has historically been higher than average for that segment of our population.

At NIH, nutrition education research also continues to be a very low funding priority. As a percentage of its nutrition projects, NIH nutrition education projects overall comprise 1%, while nutrition education projects specifically promoting fruit and vegetable consumption comprise less than 1%.

• ***Fruits and Vegetables Are a Low Priority at HHS Despite the Health Risks of the Consumption Gap***

NIH spending for fruit and vegetable research associated with three major chronic diseases (i.e., cancer, coronary heart disease, and stroke) accounted for 0.78% (less than one percent) of total research spending on those diseases, despite the fact that inadequate fruit and vegetable consumption accounts for 6%-20% of the risk associated with those illnesses.

A comparison of the respective health risks of inadequate fruit and vegetable consumption with tobacco use found that both NIH and CDC grossly under-fund fruit and vegetable related programs and that both spend a higher, disproportionate amount on anti-tobacco projects.

• ***Since FY 2000, the Priority Given to Fruits and Vegetables by Federal Agencies Has Not Increased***

Although the share of USDA spending for fruits and vegetables increased from 7.7% in FY 2000 to 19.8% in FY 2008, it remains less than half of the share of recommended servings (41%) allocated to fruits and vegetables by the Dietary Guidelines. Most of the growth in the percentage share for fruits and vegetables was a result of the new WIC fruit and vegetable voucher program and the steep drop in farm commodity program subsidies for grains and oilseeds caused by high prices. In future years, lower grain and oilseed prices will increase commodity subsidies for other food groups, which is expected to drive down the share of farm bill dollars available for fruits and vegetables. Since FY 2000, the share of spending allocated by USDA to fruits and vegetables for research and purchases supporting nutrition assistance programs has declined. Nutrition education spending at USDA, as a percentage of nutrition assistance spending, increased from only 1.2% in FY 2000 to only 1.3% by FY 2008.

The percentage of NIH cancer, coronary heart disease, and stroke research funds that were devoted to fruits and vegetables continued to be minute, despite the significant health risks associated with the fruit and vegetable consumption gap. In both FY 2000 and FY 2008, the amount of each disease's funding that was spent on fruit and vegetable research was less than 1%. Although the budget of the CDC's Division of Nutrition, Physical Activity and Obesity more than tripled between FY 2000 and FY 2008, it remained equal to only 5.1% of the CDC's total budget for chronic disease prevention and health promotion. That percentage falls short of the contribution of diet and exercise to the risk of major chronic diseases (e.g., 20% to 30% of the risk).



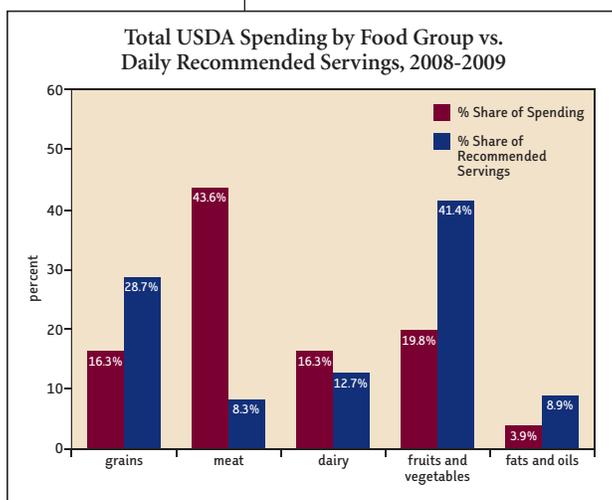
• **Nearly \$5 Billion in Cost-Effective Annual Spending Would Be Needed to Close the Total Federal Fruit and Vegetable Spending Gap**

In FY 2008, USDA, NIH, and the CDC spent about \$126 billion on activities related to food, agriculture, and public health. Less than 3% of those combined budgets was spent on programs and projects related directly to fruits and vegetables. Closing the fruit and vegetable consumption gap will require closing the fruit and vegetable spending gap.

USDA and HHS would have to more than double their spending on fruit and vegetable related projects, an increase of about \$4.8 billion, to close the total fruit and vegetable spending gap. By comparison, the \$56.3 billion annual economic cost of the fruit and vegetable consumption gap with respect to cancer, coronary heart disease, and stroke is nearly 12 times the amount needed to close the fruit and vegetable spending gap.

**Recommendations for Closing the Federal Fruit and Vegetable Spending Gap**

The following steps would need to be taken by the federal government to close the \$4.8 billion fruit and vegetable spending gap at USDA, NIH, and CDC:

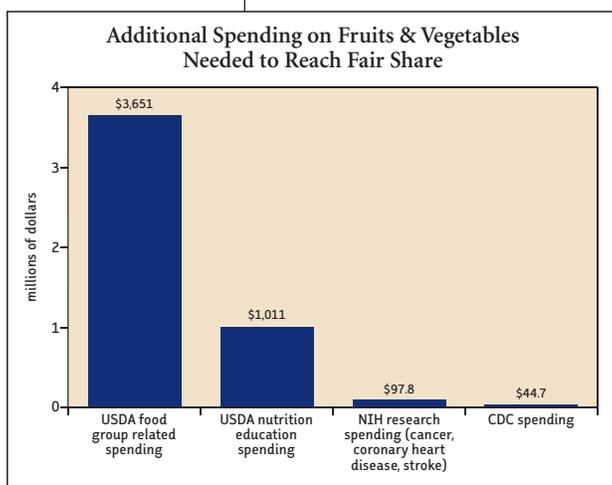


**1. Align USDA Spending with Dietary Recommendations**

Fruits and vegetables comprise 41% of the recommended daily food servings in the Dietary Guidelines, yet less than 19.8% of USDA's spending in FY 2008 was dedicated to this food group. To bring its spending on fruits and vegetables in line with the serving recommendations in the Dietary Guidelines, USDA needs to increase funding for its fruit and vegetable initiatives by \$3.65 billion, from \$3.36 billion to \$7.01 billion. That represents an increase of only 4% in USDA's FY 2008 budget.

**2. Elevate Nutrition Education as a USDA Funding Priority**

Of the five USDA nutrition education programs, the Expanded Food and Education Program (EFNEP) has consistently produced the best results in terms of increasing fruit and vegetable consumption among low-income families. To duplicate this success and bring spending in all of USDA's nutrition education programs up to the per person spending level of EFNEP, USDA would have to increase its total overall nutrition education budget from \$314 million to \$1.325 billion. That \$1.011 billion increase equals only 2.7% of the \$37.661 billion cost of the Supplemental Nutrition Assistance Program (SNAP) program in FY 2008.



**3. Allocate NIH Funding Based on the Disease-Prevention Benefits of Fruit and Vegetable Consumption**

Our analysis compared NIH spending for fruits and vegetables with anti-tobacco use spending from the perspective of the stroke, cancer, and coronary heart disease risks associated with tobacco use and inadequate fruit and vegetable consumption. The analysis found that NIH would have to spend \$97 million more than it did in FY 2008 on fruit and vegetable activities to put NIH funding for fruits and vegetables on par with NIH's investment in anti-tobacco efforts to reduce the risk of these three diseases.

**Closing the fruit and vegetable consumption gap will require closing the fruit and vegetable spending gap. USDA and HHS would have to more than double their spending on fruit and vegetable related projects, an increase of about \$4.8 billion, to close the total fruit and vegetable spending gap.**

#### 4. Bring CDC Fruit and Vegetable Spending in Line with Chronic Disease Health Risks

A similar analysis, again using anti-tobacco spending as a risk-based reference, found that CDC spending on fruit and vegetable activities would have to rise from \$8.7 million to \$53.4 million (a \$44.7 million increase) to match CDC's actual investment in anti-tobacco use programs.

#### The Cost-Effectiveness of Closing the Federal Fruit and Vegetable Spending Gap

Taken together, the additional investments needed to close the fruit and vegetable spending gap addressed in this report total \$4.8 billion or the equivalent of only 3.5% of the total spending by USDA, NIH, and the CDC in FY 2008. The additional, or reallocated, investments needed to close the fruit and vegetable spending gap promise high benefit-cost ratios, given the \$56 billion annual cost of the consumption gap, and reductions in devastating chronic illnesses, both of which will make those investments attractive to the public and policy makers.



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#### Data Sources

Data for most of the analyses undertaken in this report were obtained from federal sources or secondary sources that provided federal data and estimates. Recommended levels of daily servings of each of the major food groups for the average American were derived from the 2005 U.S. Dietary Guidelines for Americans. Per capita food consumption data were obtained from the "U.S. Per Capita Loss-Adjusted Food Availability" website of USDA's Economic Research Service. USDA spending data for food group specific programs were drawn from federal budget documents, the websites of the Agricultural Marketing Service, the Farm Security Agency and the Food and Nutrition Service, USDA's CRIS research website, the Environmental Working Group's Farm Subsidy Database, and numerous USDA agency documents. NIH and CDC spending data were obtained from federal budget and appropriations documents and the NIH Reporter website. Other data on NIH research projects were drawn from the NIH Reporter website. Estimates of the contributions of diet and the fruit and vegetable consumption gap to the risk of coronary heart disease, cancer, and stroke were obtained from the scientific literature, nonprofit public health organizations' websites, and federal sources. Inflation factors used throughout the report were computed from the Bureau of Labor Statistics' Consumer Price Index website.