

Assessing the Nutritional Quality of the Food Distribution Program on Indian Reservations (FDPIR) Food Package (Summary)

Background

The U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS) administers 16 nutrition assistance programs with the mission to increase food security and reduce hunger - in partnership with cooperating organizations - by providing children and low-income people access to food, a healthy diet, and nutrition education in a manner that supports American agriculture and inspires public confidence.

The Food Distribution Program on Indian Reservations (FDPIR) provides USDA Foods to income-eligible households living on Indian reservations and to American Indian households residing in approved areas near reservations or in Oklahoma. Many households participate in FDPIR as an alternative to the Supplemental Nutrition Assistance Program (SNAP) because FDPIR is preferred, or they do not have easy access to SNAP offices or authorized food stores. Through FDPIR, participating households receive a supplemental food package each month to help them maintain a nutritionally balanced diet. To build the food package, participants select from over 100 products including a wide variety of fresh, frozen, and shelf-stable fruits, vegetables, protein foods, dairy, grains, and oils. These foods are organized into food categories with established maximum amounts that participants can select each month. Participants can select foods up to the maximum amount within each category or elect to take less, if preferred.

The purpose of this research was to measure the nutritional quality of the FDPIR food package "as offered" (foods in amounts available for participants to choose from) and "as issued" (foods in amounts that participants typically select each month) using a diet quality index referred to as the Healthy Eating Index (HEI). The HEI score is a widely used measure of the nutritional quality of food and the total HEI-2015 score ranges from 0 to 100, with 100 being the best and high scores indicating better diet quality. This study provided an update to the first HEI estimate of the 2014 FDPIR food package. Since 2014, changes have been made to the food package and therefore it is critical for the program to assess the nutrition quality of those enhancements.

Data and Methods

The nutritional quality of the FDPIR food package was analyzed using the 2015 Healthy Eating Index (HEI-2015) scoring algorithm. The HEI-2015 is a measure of diet quality used to assess how well a set of foods aligns with key recommendations of the 2015-2020 *Dietary Guidelines for Americans (DGA)*. The HEI scoring system is density-based (e.g., amounts per 1,000 kcal) and relies on a common set of standards that are applicable across individuals and settings. The total HEI-2015 score ranges from 0 to 100 and is used to evaluate 13 components of food groups, with 100 being the best and high scores indicating better diet

quality. The 13 components in the HEI-2015 score are divided into adequacy and moderation components. The adequacy component emphasizes intake of food groups and dietary elements that are desirable, and the moderation component includes consumption of food groups and dietary elements in limited quantities (Table 1).

For the nutritional quality analysis, two sets of data from Fiscal Year (FY) 2022 were utilized: the FDPIR food package "as offered" by USDA and the food package "as issued" to participants. The methodology used in this evaluation included the following steps:

Key Findings

- The HEI-2015 score for the FDPIR food package "as offered" in FY 2022 was 84.3 based on a monthly food package of a one-person household.
- The HEI-2015 score for the FDPIR food package "as issued" to participants in FY 2022 was 70.3.
- Both scores are higher than the latest HEI-2015 scores for dietary intakes of the average American (59.0) for the years 2017-2018.

Table 1: Healthy Eating Index-2015 (HEI-2015) Scoring System

HEI-2015 Component	Maximum Points	Standard for Maximum Score	Standard for Minimum Score of Zero
Adequacy:			
Total Fruits	5	≥0.8 cup equiv. per 1,000 kcal	No Fruits
Whole Fruits	5	≥0.4 cup equiv. per 1,000 kcal	No Whole Fruits
Total Vegetables	5	≥1.1 cup equiv. per 1,000 kcal	No Vegetables
Greens and Beans	5	≥0.2 cup equiv. per 1,000 kcal	No Dark Green Vegetables or Legumes
Whole Grains	10	≥1.5 oz equiv. per 1,000 kcal	No Whole Grains
Dairy	10	≥1.3 cup equiv. per 1,000 kcal	No Dairy
Total Protein Foods	5	≥2.5 oz equiv. per 1,000 kcal	No Protein Foods
Seafood and Plant Proteins	5	≥0.8 oz equiv. per 1,000 kcal	No Seafood or Plant Proteins
Fatty Acids	10	(PUFAs + MUFAs)/SFAs ≥2.5	(PUFAs + MUFAs)/SFAs ≤1.2
Moderation:			
Refined Grains	10	≤1.8 oz equiv. per 1,000 kcal	≥4.3 oz equiv. per 1,000 kcal
Sodium	10	≤1.1 gram per 1,000 kcal	≥2.0 grams per 1,000 kcal
Added Sugars	10	≤6.5% of energy	≥26% of energy
Saturated Fats	10	≤8% of energy	≥16% of energy

MUFAs = Monounsaturated fatty acids

PUFAs = Omega-6 (n-6) polyunsaturated fatty acids

SFAs = Saturated fatty acids

- Weights were calculated for each FDPIR food product based on the amounts offered by category in the FDPIR food package.
- FDPIR foods were matched to similar retail foods in the Purchase to Plate Crosswalk (PPC), which links retail/grocery market data (also known as Universal Product Code (UPC) scanner data which is the barcode used at the grocery store checkout) to the USDA nutrition database. The most typical food preparation method was determined, and a conversion rate was calculated for each food depending on how much it needs to be cooked, prepared, or consumed as sold.
- The USDA nutrition database breaks down foods and beverages into their various food group components (e.g., fruits, vegetables, grains). The HEI score was then calculated utilizing the HEI scoring algorithm.

Findings

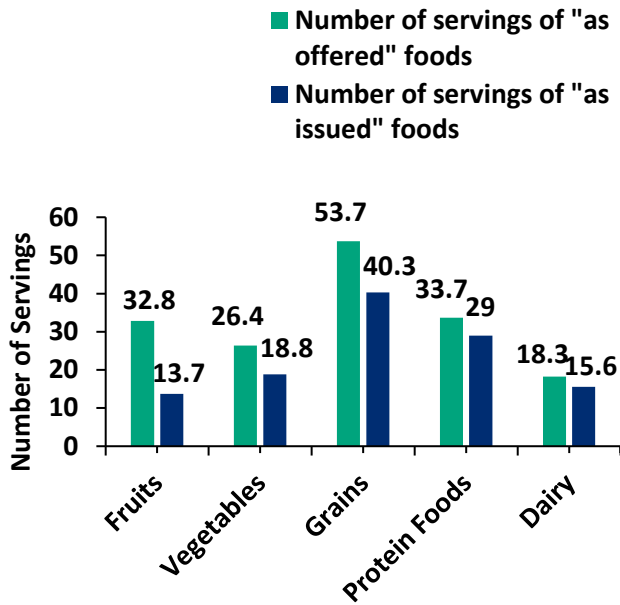
In FY 2022, FDPIR served 45,193 participants, per month on average and delivered over 30 million pounds of USDA foods to program participants. The USDA offers more than 100 different products through FDPIR. Foods are offered in fresh, frozen, and shelf-stable forms (dry and canned). FDPIR foods provide the nutrients needed to promote good health, including traditional foods such as bison, blue cornmeal, wild salmon, catfish, walleye, and traditionally harvested wild rice.

The biggest contributors to the FDPIR food package “as offered,” by number of servings based on a 2000 calorie diet, were grains, protein foods, and fruits. Vegetables and dairy were the smallest contributors compared to other food groups (Figure 1).

The “as issued” food package also followed a similar pattern when compared with the “as offered” food package contribution to number of servings. However, the number of servings for fruits under “as issued” was much lower than “as offered.”

The HEI-2015 score for the 2022 “as offered” FDPIR food package was 84.3. The component scores for the 2022 “as offered” package received a maximum score for total fruits, whole fruits, total vegetables, greens and beans, whole grains, total protein foods, seafood and plant proteins, sodium, and added sugars. Dairy, fatty acids, refined grains, and saturated fats received lower scores (Table 2).

Figure 1: Food Group Composition of Food Distribution Program on Indian Reservations (FDPIR) Food Package by Number of Servings of a 2000 Calorie Diet



USDA foods issued to FDPIR participants in FY 2022 achieved an HEI-2015 score of 70.3. These scores are considerably higher than the average HEI-2015 scores for the average American diet (59.0) in 2017-2018.

The component scores for the 2022 “as issued” package received a maximum score for greens and beans, total protein foods, seafood and plant proteins, sodium, and added sugars. All other components received a lower score (Table 2).

Table 2: Healthy Eating Index-2015 (HEI-2015) Scores for Food Distribution Program on Indian Reservations (FDPIR) "As Offered" and "As Issued" Food

HEI-2015 Component	Maximum Points	As Offered	As issued
Adequacy:			
Total Fruits	5	5	3.69
Whole Fruits	5	5	4.47
Total Vegetables	5	5	4.62
Greens and Beans	5	5	5
Whole Grains	10	10	2.99
Dairy	10	7.22	7.79
Total Protein Foods	5	5	5
Seafood and Plant Proteins	5	5	5
Fatty Acids	10	5.7	4.38
Moderation:			
Refined Grains	10	1.61	0
Sodium	10	10	10
Added Sugars	10	10	10
Saturated Fats	10	9.77	7.38
Total Score	100	84.29	70.33

Source: These analyses and findings are the result of a collaboration between Economic Research Service and Food and Nutrition Service.

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