NUTRITION EDUCATION

USDA Actions Needed to Assess Effectiveness, Coordinate Programs, and Leverage Expertise

July 2019
NUTRITION EDUCATION

USDA Actions Needed to Assess Effectiveness, Coordinate Programs, and Leverage Expertise

What GAO Found

The U.S. Department of Agriculture (USDA) administers five key programs that provide nutrition education and has information on participation, expenditures, and effectiveness for most of these programs. USDA tracks the number of participants in direct education, such as classes and counseling, as well as other measures of program reach. For example, Supplemental Nutrition Assistance Program Education (SNAP-Ed), one of USDA’s largest nutrition education programs, served 3.8 million participants through direct education in fiscal year 2018. USDA also collects nationwide expenditure data for all of its nutrition education programs, which totaled nearly $907 million in fiscal year 2017—the most recent year with complete data available. In addition, USDA collects some information on the effectiveness of most of its nutrition education programs; yet information USDA collects from states on SNAP-Ed effectiveness cannot be easily aggregated or reviewed. States provide this information in narrative reports, which hinders USDA’s ability to assess the effectiveness of interventions used across the country and determine whether SNAP-Ed is achieving its goals.

U.S. Department of Agriculture Nutrition Education Program Expenditures, Fiscal Year 2017

<table>
<thead>
<tr>
<th>Program</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Supplemental Nutrition Program for Women, Infants, and Children</td>
<td>$422 million</td>
</tr>
<tr>
<td>Supplemental Nutrition Assistance Program Education</td>
<td>$404 million</td>
</tr>
<tr>
<td>Expanded Food and Nutrition Education Program</td>
<td>$51 million</td>
</tr>
<tr>
<td>Team Nutrition</td>
<td>$16 million</td>
</tr>
<tr>
<td>Food Insecurity Nutrition Incentive Grant Program</td>
<td>$13 million</td>
</tr>
</tbody>
</table>

GAO analysis of U.S. Department of Agriculture expenditure data. | GAO-19-572

USDA does not have a formal coordination mechanism for its nutrition education efforts and does not fully leverage the department’s nutrition expertise. According to USDA officials, coordinating nutrition education efforts has not been a priority in recent years, and the department does not have a dedicated individual or entity with leadership responsibility for nutrition education. This has resulted in limited coordination across USDA’s nutrition education programs, including programs with similar target populations. GAO previously reported that effective coordination can help reduce overlap and duplication. In its absence, USDA’s nutrition education programs are missing opportunities to share information and avoid duplicating efforts. Further, some USDA nutrition experts are not located in agencies or offices overseeing the nutrition education programs, and possibly because of this, program staff consult these experts on a limited basis, if at all. Failing to leverage its internal expertise hinders USDA’s development of nutrition education materials that are informed by the latest nutrition guidance and research and may reduce the effectiveness of these efforts.

What GAO Recommends

GAO is making three recommendations to USDA, including that USDA improve how it gathers information on SNAP-Ed effectiveness, develop a formal mechanism for coordinating nutrition education across the department, and take steps to fully leverage the department’s nutrition expertise for its nutrition education efforts. USDA generally agreed with GAO’s recommendations.

Why GAO Did This Study

The Centers for Disease Control and Prevention reports that many Americans’ diets lack adequate sources of good nutrition and that this contributes to costly chronic health conditions. USDA funds and administers a variety of nutrition education efforts, which aim to help educate Americans on nutrition and improve their dietary choices. GAO was asked to review these efforts.

This report examines the extent to which USDA (1) has information on participation, expenditures, and effectiveness for its nutrition education programs; and (2) coordinates its nutrition education efforts and leverages internal nutrition expertise for these efforts. GAO reviewed relevant federal laws, regulations, guidance, and GAO’s prior work on nutrition education and leading practices for collaboration; analyzed USDA data on nutrition education participation in fiscal year 2018 and expenditures in fiscal year 2017, the most recent year with complete data available; and reviewed program evaluations and available outcome data for fiscal year 2018. GAO also interviewed USDA officials and representatives of relevant organizations.

What GAO Recommends

GAO is making three recommendations to USDA, including that USDA improve how it gathers information on SNAP-Ed effectiveness, develop a formal mechanism for coordinating nutrition education across the department, and take steps to fully leverage the department’s nutrition expertise for its nutrition education efforts. USDA generally agreed with GAO’s recommendations.

View GAO-19-572. For more information, contact Kathryn Larin at (202) 512-7215 or larink@gao.gov.
Abbreviations

ARS  Agricultural Research Service
CDC  Centers for Disease Control and Prevention
CNPP  Center for Nutrition Policy and Promotion
DGRC  Dietary Guidance Review Committee
EARS  Education and Administrative Reporting System
EFNEP  Expanded Food and Nutrition Education Program
ERS  Economic Research Service
FINI  Food Insecurity Nutrition Incentive
FNS  Food and Nutrition Service
FPRS  Food Programs Reporting System
Framework  SNAP-Ed Evaluation Framework
NIFA  National Institute of Food and Agriculture
PEARS  Program Evaluation and Reporting System
PSE  policy, systems, and environmental changes
SNACs  State Nutrition Action Councils
SNAP  Supplemental Nutrition Assistance Program
SNAP-Ed  Supplemental Nutrition Assistance Program Education
USDA  U.S. Department of Agriculture
WebNEERS  Web-based Nutrition Education Evaluation and Reporting System
WIC  Special Supplemental Nutrition Program for Women, Infants, and Children

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.
July 25, 2019

The Honorable Rosa L. DeLauro
Chairwoman, Subcommittee on Labor, Health and Human Services, Education and Related Agencies
Committee on Appropriations
House of Representatives

The Honorable Tim Ryan
House of Representatives

According to the Centers for Disease Control and Prevention (CDC), many Americans’ diets lack adequate sources of good nutrition. Poor nutrition contributes to costly chronic health conditions, including heart disease and some cancers, and in 2017, these two conditions were the leading causes of death in the United States, according to the CDC. The U.S. Department of Agriculture (USDA) oversees nutrition assistance programs and funds and administers a variety of nutrition education efforts, which aim to educate Americans on nutrition and improve their dietary choices. For example, USDA provided about $433 million in Supplemental Nutrition Assistance Program Education (SNAP-Ed) federal grants to states in fiscal year 2019 to improve the likelihood that those eligible for the Supplemental Nutrition Assistance Program (SNAP) will make healthy food and physical activity choices.¹ In addition, USDA develops dietary guidance and conducts and compiles nutrition-related research and information for the general public.

We last reviewed USDA’s nutrition education efforts in 2004 and found that USDA faced challenges coordinating its efforts across the department.² At that time, we recommended that USDA develop a unifying strategy to improve coordination efforts and strengthen the linkages among these efforts. Although USDA previously took steps to respond to our recommendation, recently there has been interest in the

¹Jointly administered by USDA’s Food and Nutrition Service and the states, SNAP is the largest federally-funded nutrition assistance program. SNAP helps low-income households obtain a better diet by providing them with benefits to purchase food from authorized retailers.

level of coordination among USDA’s nutrition education programs. Specifically, the Agriculture Improvement Act of 2018 (Farm Bill), which was signed into law on December 20, 2018, requires USDA to submit an annual report to Congress that includes an evaluation of the level of coordination between USDA’s nutrition education programs. In light of the role of these efforts in supporting public health, you asked us to review USDA’s nutrition education efforts.

This report examines the extent to which USDA (1) has information on participation, expenditures, and effectiveness for its nutrition education programs; and (2) coordinates its nutrition education efforts and leverages internal nutrition expertise for these efforts. In addition to SNAP-Ed, we focused our review on four other federal programs that provide nutrition education: the Expanded Food and Nutrition Education Program (EFNEP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Team Nutrition, and the Food Insecurity Nutrition Incentive (FINI) Grant Program. Among USDA programs that provide nutrition education, four of these received the greatest amount of federal funding for nutrition education in fiscal year 2018—WIC, SNAP-Ed, EFNEP, and Team Nutrition.3 In addition, we included FINI because its goal is to incentivize healthy eating and it is a grant program in which nutrition education can be a component.

To address both of our research objectives, we reviewed relevant federal laws, regulations, and guidance; as well as our prior work on USDA nutrition education efforts and leading practices for collaboration.4 We interviewed officials from relevant USDA agencies, including the Food and Nutrition Service (FNS), the National Institute of Food and Agriculture (NIFA), and other USDA agencies overseeing nutrition-related research and guidance. In addition, we interviewed officials from the seven FNS regional offices and representatives of selected organizations knowledgeable about USDA nutrition education efforts, including some

---

3USDA also provides nutrition education in other programs, including the Food Distribution Program on Indian Reservations and the Commodity Supplemental Food Program, but nutrition education funding for these programs is limited. In addition, according to USDA officials, the Farm to Schools Grant Program may also fund nutrition education, although the amount expended on such efforts is unknown.

involved in the implementation of nutrition education efforts.\(^5\) We assessed USDA’s efforts to collect information on its nutrition education programs, coordinate its nutrition education efforts, and leverage internal nutrition expertise against the *Standards for Internal Control in the Federal Government.*\(^6\)

In addition, to address the first objective, we reviewed USDA research on nutrition education program effectiveness issued within the last 10 years, and analyzed USDA data on nutrition education participation in fiscal year 2018 and nationwide expenditures in fiscal year 2017, the most complete data available as of April 2019.\(^7\) When data were unavailable on program participation, we analyzed proxy measures for program reach, including data on the volume of nutrition education materials disseminated, the online views and downloads of nutrition education materials, and the number of participants offered nutrition education. To assess the reliability of these data, we interviewed USDA officials and reviewed relevant documentation. We determined these data to be sufficiently reliable to identify the numbers of participants served or offered services, materials provided, and nationwide expenditures for SNAP-Ed, EFNEP, WIC, Team Nutrition, and FINI.\(^8\) For a more detailed description of our methods, see appendix I.

We conducted this performance audit from December 2018 to July 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that

\(^5\)In particular, we interviewed officials who oversee USDA-funded nutrition education programs at four selected land-grant universities. Two of these universities solely administer EFNEP and two administer both EFNEP and SNAP-Ed. We selected the four land-grant universities based on various criteria, including the recommendations of knowledgeable officials and geographic dispersion, among other factors. For more information on our scope and methodology, including the agencies and organizations whose representatives we interviewed, see appendix I.


\(^7\)USDA collects data on expenditures from states and grantees.

\(^8\)Data on participation in direct education were not available for WIC or Team Nutrition, so we examined the numbers of participants offered services through WIC and Team Nutrition educational materials disseminated as proxy measures for participation. USDA officials indicated these were the best proxies for participation. Participation data are not yet available for FINI. Federal expenditure data were available for all of the programs.
the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

### Background

<table>
<thead>
<tr>
<th>Administration of USDA's Nutrition Education Programs</th>
<th>USDA administers its nutrition education programs through multiple agencies in two mission areas—Food, Nutrition, and Consumer Services and Research, Education, and Economics (see fig. 1).</th>
</tr>
</thead>
</table>
Within the Food, Nutrition, and Consumer Services mission area, FNS oversees nutrition assistance programs with nutrition education.
components, such as SNAP, WIC, and child nutrition programs. For SNAP-Ed and WIC, the FNS national office develops program policies and guidance and works with the FNS regional offices to provide technical assistance to state agencies. The FNS regional offices also review SNAP-Ed and WIC state plans. The Team Nutrition initiative is administered by FNS national officials who also work on child nutrition programs. FNS staff develop Team Nutrition materials, training resources, and guidance and provide assistance to state agencies and local entities overseeing the child nutrition programs.

Within the Research, Education and Economics mission area, NIFA national officials oversee EFNEP, in part by providing program guidance, reviewing grant recipient plans, and conducting some monitoring and oversight of local implementing entities. The NIFA national office, together with the FNS national office, administers the FINI program. Although NIFA has primary responsibility over the grant award process, FNS has been overseeing an independent evaluation of program efforts.

Interventions for USDA's nutrition education programs are provided through varied local entities and settings. For example, land-grant universities may provide SNAP-Ed and EFNEP interventions, while local health clinics may provide WIC interventions. USDA's programs also provide nutrition education in varied settings, ranging from grocery stores to hospitals (see fig. 2). Sometimes multiple nutrition education programs operate in the same setting. For example, SNAP-Ed may provide classes for students while Team Nutrition may distribute teacher training materials and nutrition education curricula to the same school.

9 USDA's child nutrition programs include the school meals programs, Child and Adult Care Food Program, and Summer Food Service Program, among others.

10 Following the Agriculture Improvement Act of 2018 (Farm Bill), FINI is now known as the Gus Schumacher Nutrition Incentive Program (also referred to as GusNIP). In this report, we refer to the program as FINI.

11 Consistent with USDA's SNAP-Ed definition of a nutrition education intervention, throughout this report we use intervention to mean an activity or set of activities or actions implemented to promote healthy eating and active lifestyles.

12 The land-grant university system includes federally-funded universities and colleges that provide extension services to address public needs. For example, according to USDA, extension services improve the lives of consumers and families through nutrition education, food safety training, and youth leadership development.
Most of USDA’s nutrition education programs target interventions to low-income populations with varied characteristics, as shown in table 1, and the programs also differ in how nutrition education fits into their structures. For example, SNAP-Ed and EFNEP are primarily focused on providing nutrition education to participants, while Team Nutrition provides nutrition education to both child nutrition program implementers and participants. WIC provides benefits for food and referrals to health and other social services, as well as nutrition education, including breastfeeding promotion and support, to participants. FINI provides benefits for purchasing healthy foods and may include additional nutrition education programming.

13According to federal regulations, WIC state agencies must ensure nutrition education, and breastfeeding promotion and support, are made available to all participants. However, participants cannot be denied the supplemental foods benefit of the program if they fail to attend or participate in nutrition education activities. See 7 C.F.R. §§ 246.1 and 246.11(a).
Table 1: Target Populations of U.S. Department of Agriculture Nutrition Education Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Supplemental Nutrition Program for Women, Infants,</td>
<td>Low-income women who are pregnant, breastfeeding, or non-breastfeeding postpartum;</td>
</tr>
<tr>
<td>and Children (WIC)</td>
<td>infants; and children up to 5 who are at nutritional risk&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Supplemental Nutrition Assistance Program Education (SNAP-Ed)</td>
<td>Anyone eligible for the Supplemental Nutrition Assistance Program (SNAP) and other</td>
</tr>
<tr>
<td></td>
<td>low-income individuals&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Expanded Food and Nutrition Education Program (EFNEP)</td>
<td>Low-income families, especially parents and other adult caregivers who have primary</td>
</tr>
<tr>
<td></td>
<td>responsibility for feeding young children; pregnant teens; youth; and children&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Team Nutrition</td>
<td>Child nutrition program operators and administrators, school nutrition professionals,</td>
</tr>
<tr>
<td></td>
<td>teachers, parents, students in kindergarten through grade 12, pre-kindergarten students</td>
</tr>
<tr>
<td></td>
<td>and toddlers, and infants</td>
</tr>
<tr>
<td>Food Insecurity Nutrition Incentive (FINI) Grant Program</td>
<td>SNAP recipients</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal laws, regulations, and guidance.  

<sup>a</sup>WIC requires each participant to undergo a nutritional risk assessment. Nutritional risk is based on federal guidelines and determined by a health professional such as a physician, nutritionist, or nurse. The risk may be medically-based (such as anemia) or diet-based. USDA published guidance in 2006 to establish standards for these assessments and to provide personalized nutrition education, referrals, and food package tailoring.

<sup>b</sup>SNAP-Ed programming may be administered in settings that generally serve low-income individuals, such as food banks or public housing locations. People served are not required to be SNAP recipients, but services must be targeted to low-income individuals who are eligible for SNAP benefits or other means-tested federal assistance programs and individuals residing in communities with a significant low-income population.

<sup>c</sup>EFNEP defines youth as those ages 13 to 18, generally in middle school through high school, and children as those ages 5 to 12, generally in kindergarten through elementary school.

Programs also provide nutrition education through various intervention methods, ranging from direct education, such as cooking demonstrations, classes on healthy eating, and one-on-one counseling, to social media campaigns and efforts to change policies, systems, or environments.  

- **SNAP-Ed** provides direct education through a variety of nutrition educators, although its interventions also may involve social marketing and policy, systems, and environmental changes (PSE). PSE is intended to shape policies, practices, and physical environments to support and improve nutrition education, physical

<sup>14</sup>Direct education includes interventions where an educator actively engages a participant in an individual or group setting, as well as interventions where a participant is actively engaged in learning through interactive media, according to USDA guidance.
activity habits, and obesity prevention efforts. In fiscal year 2018, approximately 76 percent of SNAP-Ed interventions included direct education, whereas 54 percent included PSE, according to USDA data.

- **EFNEP** primarily provides direct education through paraprofessionals, also known as peer educators. Paraprofessionals typically live locally in the community, which allows them to recruit and receive referrals for new participants. University and locally-based professional staff train and supervise the paraprofessionals. In addition, EFNEP has incorporated PSE interventions in recent years. For example, USDA provides PSE training for EFNEP program implementers, as one step toward adopting the PSE approach.

- **WIC** programs also provide direct education, such as counseling and group discussions, and, according to federal regulations, are allowed to use other intervention methods as long as they are easily understood by participants and bear a practical relationship to participant nutritional needs, household situations, and cultural preferences. For example, WIC programs may conduct demonstrations or grocery store tours to help consumers understand how to read nutrition labels or shop on a budget.

- **Team Nutrition** creates and disseminates web-based and hard-copy educational materials to child nutrition program implementers in part to educate child nutrition program participants. For example, Team Nutrition provides curricula, posters, tools, guides, recipes, and cookbooks for schools and child care sites. Team Nutrition also provides annual grants to enhance nutrition education intervention efforts in schools and child care settings, as well as training for

---

15 An example of a policy change is a school that serves low-income students writing a policy that allows the use of school facilities for recreation during non-school hours. An example of a systems change is the creation of a “farm-to-fork” system that links farmers and local distributors with new retail or wholesale customers in low-income settings. An example of an environmental change is a food retailer that serves a low-income community displaying fruits and vegetables in a manner that encourages consumer selection of healthier food options.

16 Interventions can include combinations of direct education, social marketing, and policy, systems, and environmental changes. For example, an intervention may include both direct education and social marketing.

17 The PSE training was developed through the Regional Nutrition Education and Obesity Prevention Centers of Excellence initiative, which was jointly funded by FNS and NIFA and discontinued after 2018. The training remains available and is used by both EFNEP and SNAP-Ed.
program implementers through its partnership with the Institute of Child Nutrition.18

- **FINI** supports healthy eating choices by incentivizing the purchase and consumption of fruits and vegetables. For example, some FINI programs provide vouchers redeemable for qualifying fruits and vegetables. Further, according to USDA officials, a FINI program may partner with another USDA nutrition education program, such as SNAP-Ed or EFNEP, to provide nutrition education.

### Other USDA Nutrition Education Efforts

<table>
<thead>
<tr>
<th>USDA Agencies</th>
<th>Efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USDA’s Center for Nutrition Policy and Promotion (CNPP)</strong>, within FNS, works with the U.S. Department of Health and Human Services to develop the <em>Dietary Guidelines for Americans</em>, dietary guidance linking scientific research to the nutrition needs of consumers. CNPP also takes the lead on consumer nutrition education, including MyPlate, which translates the Dietary Guidelines for Americans for consumers.</td>
<td></td>
</tr>
<tr>
<td><strong>USDA’s Economic Research Service (ERS)</strong> conducts research and issues publicly available reports related to promoting the purchase and consumption of healthy, economical foods. ERS also provides data relevant to the nutrition of U.S. households and communities.</td>
<td></td>
</tr>
<tr>
<td><strong>USDA’s Agricultural Research Service (ARS)</strong> serves as a repository for publicly available nutrition education information and data. ARS manages the website Nutrition.gov, the Historical Dietary Guidance Digital Collection, and the FoodData Central data system, which provides food nutrient data for consumers.19</td>
<td></td>
</tr>
</tbody>
</table>

---

18The Institute of Child Nutrition, located at the University of Mississippi, conducts applied research that produces research-based standards, guidance, best practices, and strategies for child nutrition program implementers. Additionally, the Institute develops and conducts education and training to ensure USDA regulations, policies, and guidance are translated for child nutrition program implementers to understand, and offers related technical assistance.

19Nutrition.gov is a website that provides information to consumers about topics such as diet and health conditions and nutrients in foods. The Historical Dietary Guidance Digital Collection provides consumers with historical information related to nutrition education. FoodData Central is a new USDA food nutrient data system, formerly known as the USDA Food Composition Databases.
According to USDA data, 3.8 million and 436,000 people participated in direct education interventions for SNAP-Ed and EFNEP, respectively, in fiscal year 2018. Direct education participation in these two programs, which are focused primarily on nutrition education, has decreased in recent years. Between fiscal years 2010 and 2018, SNAP-Ed direct education participation declined by 33 percent and EFNEP declined by 28 percent. Program officials we spoke with noted some factors that may in part explain these trends. For example, USDA officials said direct education has been less of a focus in SNAP-Ed in recent years, as the department has encouraged programs to use policy, systems, and environmental change interventions and social marketing, in addition to the traditional direct education, following implementation of the Healthy Hunger-Free Kids Act of 2010.

USDA officials said that all WIC recipients are offered nutrition education, and therefore they report that 6.9 million people were offered nutrition education. USDA Collects Information on Nutrition Education Participation and Expenditures, but Faces Challenges Assessing Effectiveness for One of Its Largest Programs

Information on Participation Includes Those Receiving Direct Education and Other Measures of Program Reach

---

20SNAP-Ed and EFNEP also collect information on program reach. For SNAP-Ed, information is collected on the estimated number of individuals who experience an intervention or are assumed to be influenced by it. However, states face challenges with tracking these individuals, and these data are likely to include duplicate records of individuals, according to USDA officials. For EFNEP, information is collected on the number of other family members of those who participated in direct education who may therefore also benefit from the information shared, according to USDA officials. In fiscal year 2018, EFNEP reached about 257,000 people indirectly.
education through the program in fiscal year 2018. Although officials consider this to be the best proxy for WIC nutrition education participation, more than 5.2 million of these WIC recipients were infants or children ages 5 and under. In addition, WIC recipients do not need to participate in nutrition education to receive the program’s food benefits. As a result, USDA’s proxy overcounts the number of people who participated in WIC nutrition education.

For Team Nutrition, USDA tracks the reach of its nutrition education using the volume of materials distributed. Between fiscal years 2012 and 2018, Team Nutrition distributed around 5.1 million of its hard-copy materials, such as curricula, technical assistance and training tools, and other materials, to child nutrition program implementers, including schools and day care providers. Further, from March 2014 through fiscal year 2018, there were about 11 million unique views of Team Nutrition materials hosted on USDA’s Team Nutrition website.

Additionally, USDA is collecting participation data for FINI through the FINI National Evaluation. The evaluation is ongoing and FINI participation data will be available after it concludes, according to USDA officials.

USDA’s data show that nearly $907 million was expended on nutrition education programs in fiscal year 2017, the most recent year for which complete data are available, with $826 million expended on two programs—WIC and SNAP-Ed (see fig. 3). Specifically, states expended $422 million on WIC nutrition education and nearly $404 million

---

21USDA does not have data on Team Nutrition hard-copy materials distributed prior to fiscal year 2012, according to USDA officials.

22USDA does not have data on the number of online views of Team Nutrition materials prior to March 2014, according to USDA officials.

23USDA officials said that participation data on FINI will be limited to data on the total amount of incentives issued and the total amount of incentives redeemed by community-based and large-scale projects. Furthermore, the evaluation is not collecting data from grantees on the number of unique participants who received incentives because grantees reported that, few, if any of their retailers are able provide this data.

24USDA collects data on expenditures from states and grantees. In this report, references to nationwide expenditures are intended to be references to state and grantee expenditures.
Further, grantees expended $51 million on EFNEP, $16 million on Team Nutrition, and $13 million on FINI in fiscal year 2017.  

Figure 3: Nationwide Expenditures for U.S. Department of Agriculture Nutrition Education Programs for Fiscal Year 2017

WIC = Special Supplemental Nutrition Program for Women, Infants, and Children; SNAP-Ed = Supplemental Nutrition Assistance Program Education; EFNEP = Expanded Food and Nutrition Education Program; TN = Team Nutrition; FINI = Food Insecurity Nutrition Incentive Grant Program

USDA has total annual expenditure data at a national level for its nutrition education programs, but it does not have detailed information on how the funding is expended that can be routinely analyzed in its two programs with the largest expenditures—WIC and SNAP-Ed. Since both programs allow states to use various types of nutrition education interventions, information on spending by type of intervention may help USDA compare costs, and with additional information, potentially assess the cost effectiveness of various nutrition education interventions. For WIC, USDA collected detailed information on nutrition education spending at the local agency level in 2016 through a survey and analyzed the costs associated

25 WIC state agencies are required to expend at least one-sixth of their Nutrition Services and Administration costs on nutrition education and breastfeeding promotion and support. Nutrition Services and Administration costs are those, exclusive of food costs, that state and local agencies determine are necessary to support program operations.

26 Authorized FINI funding was $20 million in fiscal year 2017 and $25 million in fiscal year 2018, and rose to $45 million in fiscal year 2019 due to the enactment of the Agriculture Improvement Act of 2018 (Farm Bill). The 2018 Farm Bill adds funding for two new types of grants as part of FINI—Produce Prescription Program and Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Centers.
with different types of nutrition education interventions. In contrast, USDA collects information on SNAP-Ed local implementing agency expenditures in narrative annual reports that make it difficult to assess spending by type of nutrition education intervention.

### USDA Has Taken Steps to Evaluate the Effectiveness of its Programs, and Faces Ongoing Challenges Assessing SNAP-Ed

Through studies and data collection, USDA has gathered some information on the effectiveness of its nutrition education interventions. For example, in 2018, USDA completed the *WIC Nutrition Education Study*, which assessed WIC nutrition education in both descriptive and evaluative ways (see text box). Additionally, USDA officials said a new study is underway looking at how the WIC nutritional risk assessment tailors the benefit package participants receive, including the nutrition education offered. USDA has also funded various grants and cooperative agreements that have evaluated WIC nutrition education to some extent, according to USDA officials.

---

27Specifically, USDA collected information on local agencies’ types of nutrition education interventions and Nutrition Services and Administration costs in their states. USDA analyzed this information and found, for example, most local agencies whose per participant costs ranged from $11.97 to $13.00 offered group education sessions. In contrast, fewer than half of these agencies offered one-on-one telephone counseling. While this finding was nationally representative, the study had some limitations, such as low survey response rates for territories and Indian Tribal Organizations. U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, *WIC Nutrition Education Study: Phase I Report* (May 2016).

28Although USDA conducts monitoring and oversight of state SNAP-Ed programs through management evaluations and financial management reviews, which in part assess whether expenditures were allowable under federal rules, these do not constitute an analysis of spending by type of nutrition education intervention.

29For Team Nutrition, USDA ensures materials are consistent with the *Dietary Guidelines for Americans*, and has not to date otherwise evaluated Team Nutrition materials for effectiveness, according to USDA officials.

30The study was comprised of two phases. The first phase described WIC nutrition education processes and features. The second phase was a pilot study looking at the impact of WIC nutrition education on participants’ nutrition and other behaviors in six WIC sites. The second phase determined that a national WIC nutrition education evaluation study is not feasible in part because nutrition education is offered to all WIC participants, and therefore WIC lacks a true comparison group that has not had exposure to WIC nutrition education. USDA noted that the study had some limitations, such as the use of a self-reported measure of exposure to nutrition education. U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, *WIC Nutrition Education Study: Phase I Report* (May 2016). U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, *WIC Nutrition Education Study: Phase II Report* (September 2018).
This 2018 study was designed to address research questions about the impact of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)’s nutrition education on participant nutrition and physical activity behaviors, among other things, in six pilot sites.

Although pilot sites’ nutrition education practices varied, the study did not find significant differences in reported exposure to nutrition education, such as the number of contacts with an educator or receipt of materials to reinforce nutrition messages during visits, or significant differences in participant outcome behaviors, among participants by site.


For EFNEP, USDA regularly collects participant data to assess the effectiveness of EFNEP interventions nationwide, and several studies have also assessed the cost effectiveness of EFNEP. Specifically, EFNEP participants take standardized food and physical activity questionnaires and provide information on their dietary consumption in the past 24 hours before and after participating in an intervention, such as a class. EFNEP administrators use this information to measure participant behavior change and also report it to USDA through EFNEP’s data reporting system (see text box). USDA is then able to aggregate these data at the national level and use them to assess the effectiveness of EFNEP interventions nationwide. Further, several studies have evaluated EFNEP cost effectiveness, including one which used national data to estimate EFNEP cost effectiveness by state.31

Outcomes Reported on Expanded Food and Nutrition Education Program (EFNEP) Participant Questionnaires

Questionnaires are administered when adult EFNEP participants enter the program and again when they exit the program to measure behavior change in core areas, including diet quality and physical activity, food safety, food resource management, and food security. For fiscal year 2018, the majority of participants reported improvements in diet quality (92 percent), food resource management (80 percent), food safety (79 percent), and physical activity (78 percent). Further, almost half of participants reported improvement in food security (47 percent).

Source: U.S. Department of Agriculture’s National Institute of Food and Agriculture fiscal year 2018 data on EFNEP participant outcomes. | GAO 19-572

In addition to WIC and EFNEP, USDA is currently collecting information from its grantees on FINI effectiveness as part of its forthcoming FINI National Evaluation. An interim evaluation report found a positive, but modest, impact of FINI on monthly household fruit and vegetable expenditures, but no measurable impact on adults’ daily fruit and vegetable consumption. Previously, USDA assessed the effectiveness of the Healthy Incentives Pilot, which was a predecessor to FINI. The pilot tested the impact of making fruits and vegetables more affordable for SNAP participants and found that participants consumed almost one-quarter of a cup more fruits and vegetables per day than non-participants.

USDA has also taken steps to support evaluation of the effectiveness of SNAP-Ed interventions both through its own research and the development of an evaluation framework. In 2012 and 2013, USDA reviewed selected SNAP-Ed interventions to identify potential models of

---

32The evaluation is examining 4 grant cycles, ending with grants awarded in fiscal year 2018, and will conclude with the release of a final report.

33When examining expenditures, USDA used household as the unit of analysis, and when examining consumption, used individual as the unit of analysis. USDA also identified limitations in the study caused by difficulty tracking expenditures at farmers markets. U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, The Evaluation of Food Insecurity Nutrition Incentives (FINI) Interim Report (May 2019).

34The pilot study was not generalizable nationwide, in part because the pilot only occurred in one county in one state. Further, the study had other limitations, including survey non-response. U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Evaluation of the Healthy Incentives Pilot (HIP): Final Report (September 2014).
effective SNAP-Ed interventions and impact evaluations. Specifically, USDA evaluated five interventions aimed at increasing fruit and vegetable consumption in preschool or elementary-age children, one intervention aimed at increasing fruit and vegetable consumption in low-income seniors, and one intervention aimed at increasing low-income women’s knowledge of healthy eating choices. Also in 2013, the FNS Western Regional Office began an effort to develop the SNAP-Ed Evaluation Framework (Framework), which was finalized in 2016 and fully adopted for national use. The Framework was developed as a way to evaluate program interventions, and with the intention of encouraging use of policy, systems, and environmental change interventions, according to USDA officials.

All states are currently using the Framework to evaluate SNAP-Ed program interventions, according to USDA officials; however, because the Framework allows for myriad ways to measure outcomes, information reported by states on the effectiveness of SNAP-Ed interventions varies widely. Within states, SNAP-Ed implementing entities can select from 51 indicators and various outcome measures in the Framework to evaluate their interventions. Although USDA has identified 7 of the Framework’s 51 indicators as priority indicators, and encouraged states to use these, each indicator has multiple outcome measures and data collection

Impact evaluations assess whether or not the observed outcomes are a result of the intervention.


In 2016, the SNAP-Ed Toolkit, more formally known as SNAP-Ed Strategies & Interventions: An Obesity Prevention Toolkit for States, was created to serve as a repository of evidence-based policy, systems, and environmental change interventions that support education and social marketing. The toolkit also provides ways to implement and evaluate policy, systems, and environmental change interventions across various community settings and contains an interactive version of the Framework.

The priority indicators examine short-term change related to organizational partnerships and multi-sector partnerships and planning, as well as medium-term change related to, for example, healthy eating, food resource management, and physical activity. An additional indicator examines healthy eating in the broader low-income population. USDA guidance encourages states to measure at least one of the priority indicators related to short term change, all of the priority indicators related to medium-term change, and, if possible, the low-income population results indicator.
methods associated with it (see text box). Therefore, even if the same indicators are selected to evaluate the effectiveness of different SNAP-Ed interventions, each state may select different outcome measures and data collection methods, and report different information on effectiveness. In our prior work, we found that agencies that seek to manage an excessive number of performance measures may risk creating a confusing excess of data that will obscure rather than clarify performance issues.

### Elements of a Selected Medium Term Change Indicator: Healthy Eating

The medium term change indicator for healthy eating acts as a priority indicator among the 51 indicators included in the Supplemental Nutrition Assistance Program Education (SNAP-Ed) Evaluation Framework. SNAP-Ed programs may use this indicator to measure healthy eating behavioral changes reported by SNAP-Ed participants before and after participation in a series of direct nutrition education classes. Within this indicator, programs may select from various outcome measures and data collection tools:

#### Outcome Measures:
- Programs may select from 13 outcome measures to assess the participants on this indicator. Some options include eating more than one kind of vegetable, drinking water, and using MyPlate to make food choices.

#### Data Collection Tools:
- To assess these outcome measures, programs may select from 11 surveys and other data collection tools compiled by the U.S. Department of Agriculture, such as a food behavior checklist for adults and a beverage and snack questionnaire for older youth.

In addition, USDA receives information on states’ evaluations of effectiveness that is not easily analyzed nationwide. Although states report information on SNAP-Ed interventions to USDA in a data system, including information on participation, demographic characteristics of direct education participants, and types of education interventions, the data system is not structured to allow states to report information on intervention effectiveness, including cost effectiveness. Instead, USDA uses SNAP-Ed state plans and annual reports to collect information on state efforts to evaluate program effectiveness, among other things. However, in their plans and reports, states identify the Framework indicators they use and describe their evaluation efforts and outcomes in narrative form, limiting USDA’s ability to aggregate evaluation information across states or interventions, according to USDA officials. One local SNAP-Ed official said her state’s most recent annual report was approximately 60 pages long, highlighting the magnitude of the narrative information some states provide. While USDA officials acknowledged these challenges, they said a narrative report is used to accommodate the differences among SNAP-Ed programs.

USDA officials said that because the Framework is still relatively new, they are working to determine both how to assist states’ efforts to use it to evaluate SNAP-Ed effectiveness and to ensure these evaluations provide USDA with useful information for assessing these programs. Further, USDA officials said they are currently in the process of determining future SNAP-Ed reporting protocols to improve program implementation and impact. Federal internal control standards state that agencies should use relevant, quality information from reliable sources to inform decision-making and evaluate performance in achieving key objectives. Without information that can be compared across states or easily aggregated or

42As previously noted, USDA does not collect expenditure information by type of nutrition education intervention, and it collects expenditure information by implementing agency in narrative annual reports, which are difficult to aggregate and analyze at the national level. FNS officials acknowledged that the SNAP-Ed data system needs improvement, and they have started to explore potential changes. According to USDA officials, some states use other systems to collect information on SNAP-Ed intervention effectiveness, including the Program Evaluation and Reporting System (PEARS) and the Web-based Nutrition Education Evaluation and Reporting System (WebNEERS). PEARS is coordinated by Kansas State Research and Extension and is centered around four evaluation framework indicators, three of which are priority indicators. According to the Kansas State website, 28 states currently use PEARS. WebNEERS is the EFNEP data reporting system. In fiscal year 2018, 25 land-grant universities that also administer EFNEP programs used WebNEERS for their SNAP-Ed programs.

43GAO-14-704G.
reviewed nationwide, USDA is unable to assess the effectiveness of interventions used across the country to determine whether SNAP-Ed is achieving program goals.

USDA Lacks a Formal Coordination Mechanism and Does Not Fully Leverage Internal Expertise for Its Nutrition Education Efforts

Coordination of Nutrition Education Efforts Is Limited

USDA’s national office does not have a formal coordination mechanism for department-wide nutrition education efforts; however, the department has taken some steps to coordinate efforts related to nutrition. For example, USDA convened staff from various program offices in November 2017 for a two-day Intra-Departmental Nutrition Workgroup Meeting. The focus of the meeting was not specifically nutrition education, but included a discussion of current and potential USDA efforts to encourage healthy food choices for certain age groups. The department also has a few committees that address nutrition issues, including the Human Nutrition Coordinating Committee and the

---

44There are currently no plans for another intra-departmental meeting on nutrition, according to USDA officials.

45The meeting included small group discussions of existing and potential USDA efforts to encourage healthy food choices, particularly among women who are pregnant and/or lactating, infants from birth to 24 months, children and adolescents, and older adults.

46The Human Nutrition Coordinating Committee coordinates the National Nutrition Month activities at USDA (each March) and functions as the steering committee for the website, Nutrition.gov. The committee is chaired by the national program leaders for human nutrition at the ARS and is co-chaired by an FNS representative. In addition to ARS and FNS, other participating USDA agencies include the Agricultural Marketing Service, CNPP, ERS, Food Safety and Inspection Service, National Agricultural Library, and NIFA. Representatives from the U.S. Department of Health and Human Services’ Office of Disease Prevention and Health Promotion, U.S. Food and Drug Administration, and National Institutes of Health also participate.
Interagency Committee on Human Nutrition Research. Although these committees do not focus on nutrition education, they convene USDA officials and other federal partners on a regular basis. Despite the lack of a focus on nutrition education in these meetings, USDA officials who participated said these opportunities were useful for sharing related information with staff from across the department.

USDA has also taken some steps to coordinate efforts across nutrition education programs that have an intersection of target populations, though this has not consistently occurred at the federal level, according to USDA officials. For example, in recent years, WIC officials collaborated with Team Nutrition officials on the development of infant feeding and breastfeeding resources for use in child care settings to ensure consistent messaging. However, USDA officials reported that other programs with similar target populations have not coordinated. For example:

- USDA officials told us WIC and SNAP-Ed officials have limited interaction, although both programs serve low-income families with young children and coordination could help reinforce key messaging from each program.
- Several regional SNAP-Ed officials said that they had limited involvement with Team Nutrition, although both programs may serve students in schools and sharing resources could help maximize program impact.
- Both SNAP-Ed and EFNEP focus on providing nutrition education to similar populations and are delivered by land-grant universities, yet there is limited coordination between the two programs. Regional officials who work on SNAP-Ed reported limited familiarity with

---

47The Interagency Committee on Human Nutrition Research is charged with improving the planning, coordination, and communication among federal agencies engaged in nutrition research. Within USDA, ARS, ERS, NIFA, CNPP, and FNS serve on the committee. Other members include the U.S. Department of Health and Human Services, U.S. Department of Commerce, U.S. Department of Defense, Environmental Protection Agency, Federal Trade Commission, National Aeronautics and Space Administration, National Science Foundation, United States Agency for International Development, U.S. Department of Veterans Affairs, and Office of Science and Technology Policy.

48According to USDA officials, the SNAP-Ed national office makes Team Nutrition materials available for use by schools participating in SNAP-Ed, and SNAP-Ed grantees often work with Team Nutrition schools to order materials directly from Team Nutrition.

49According to USDA data, in fiscal year 2018, over one-third of SNAP-Ed implementing agencies—55 of 152 agencies—were land-grant universities.
EFNEP and said they have learned about EFNEP efforts intermittently through state and local officials, rather than from the national office. Similarly, representatives of the two land-grant universities we spoke with who solely administer EFNEP had limited information regarding SNAP-Ed efforts, though they expressed interest in coordinating efforts to maximize both programs’ reach and avoid duplication of effort.⁵⁰

In the absence of formal coordination mechanisms from USDA headquarters, other efforts have developed to help coordinate nutrition education programs nationwide, though USDA national office involvement is limited.

- **Association of SNAP Nutrition Education Administrators:** Representatives of SNAP-Ed state implementing agencies formed the Association because they lacked a mechanism to communicate with FNS national office staff or one another on topics related to nutrition education, according to a representative of this group. Officials from FNS’s national and regional offices formally participate in the group’s annual conferences and other activities, but this representative told us that members of the group would appreciate more opportunities to interact directly with these officials.⁵¹

- **SNAP-Ed Program Development Group:** Land-grant universities established this separate SNAP-Ed-focused workgroup to strengthen SNAP-Ed programs and nutrition networks at the state, regional, and national levels, and identify linkages between SNAP-Ed and the land-grant university system’s broader outreach, education, and research mission. SNAP-Ed officials from FNS’s national office do not regularly participate in this group, yet the NIFA administrator of EFNEP sits on the group’s leadership committee.⁵²

- **Food, Nutrition, and Consumer Services Nutrition Council:** This group convenes national and regional staff in the Food, Nutrition, and Consumer Services mission area on nutrition-related topics and is

---

⁵⁰Information provided by the two land-grant universities we spoke with cannot be generalized to all land-grant university officials participating in the EFNEP program nationwide.

⁵¹According to USDA officials, the NIFA administrator of EFNEP has also participated in the group’s annual conferences and other activities, such as a workgroup on the SNAP-Ed Evaluation Framework.

⁵²NIFA officials said that NIFA’s role in this group has diminished in recent years as additional land-grant university representatives have taken on leadership roles.
currently led by regional officials, although the group was previously led by both national and regional officials. FNS officials told us the Nutrition Council has not regained momentum at the national office level since leadership transitioned to the regional office level, and one regional official with leadership responsibilities on the Council told us the group would benefit from more leadership support from FNS national office staff.

- **State Nutrition Action Councils (SNACs):** At the state level, SNACs are primarily comprised of state representatives from FNS programs and develop statewide cross-program nutrition education plans. FNS’s national office has supported SNACs as a model for coalescing state programs around nutrition education and obesity prevention efforts but has delegated leadership of the SNACs to the regions, who work directly with state agencies.

USDA does not have a dedicated individual or entity with leadership responsibility for nutrition education, and program staff who work on nutrition education are currently focused on their individual programs, according to USDA officials. Although FNS has a senior nutrition advisor who supports national and regional officials who work on FNS programs, the advisor’s role does not encompass department-wide coordination on nutrition education. Further, program staff whose responsibilities include nutrition education serve the needs of their individual programs and lack formal communication channels with one another, according to USDA officials. Previously, from 1998 through 2008, USDA had a centralized Nutrition Services Staff that served as a formal coordinating entity for FNS and held cross-program nutrition education meetings, which were useful for information sharing, according to USDA officials. In 2008, this division, which had been comprised largely of nutritionists, was dissolved, with its staff with nutrition expertise largely dispersed to individual program offices.

---

53The 2003 National Nutrition Education Conference, Nutrition Connections: People, Programs, and Science conference, held in February 2003, included approximately 900 attendees from across the country. According to officials, during a state networking session, individuals representing state agencies that administer USDA nutrition assistance programs in 49 states, the District of Columbia, and the U.S. Virgin Islands worked together to identify common goals and formulate plans to develop cross-program initiatives. In addition to the focus on cross-program initiatives in nutrition assistance programs, one panel presentation described joint WIC and EFNEP partnerships across the country, their impacts, and lessons learned from these partnerships. A second national nutrition education conference, 2005 Nutrition Connections: People, Programs, Science, and Community, was held in September 2005.
According to national and regional officials, in recent years, coordinating nutrition education has not been a priority for USDA, and there has been a loss of staff resources dedicated to nutrition education in the department overall. National and regional officials said it is hard to find time to coordinate across nutrition education efforts because they face competing priorities and increased workloads, at times because staff with nutrition education expertise have left employment with USDA and not been replaced. According to regional officials, a voluntary group of FNS national and regional officials who meet to discuss nutrition issues has experienced diminishing participation in recent years, in part due to these reasons.

Regional officials and land-grant university officials said that more formal coordination mechanisms to provide leadership and promote cross-department coordination and information sharing on nutrition education could help increase efficiency, maximize the use of federal resources, and avoid potential duplication of effort. One regional official said she regularly reaches out to a colleague to obtain information on other FNS nutrition education programs, but a centralized tool could provide this information quicker and more efficiently. Another regional official said she compiled information on USDA nutrition education grant opportunities for states in her region, but it would be helpful if this information were centrally compiled by the national office.\footnote{Although FNS has a website with information on grant opportunities, it is not organized by grant purpose, such as nutrition education.}

Federal internal control standards state that agencies should communicate quality information across reporting lines to enable personnel to perform key roles in achieving objectives, and management should set the tone at the top and throughout the agency to ensure

\footnote{Members of the regional office-led Food, Nutrition, and Consumer Services Nutrition Council developed a cross-walk document on nutrition education efforts in the Food, Nutrition, and Consumer Services mission area, including information on funding sources, eligible populations, educational approaches and resources, and best practices. Three regional officials suggested that the national office could adopt this cross-walk document, perhaps converting it into an online, interactive resource for department-wide use.}
priorities are understood by all stakeholders. In our prior work, we reported that effective coordination can help reduce overlap and duplication, and we found that sustained leadership is an essential element to developing collaborative working relationships. We also identified leading practices that federal agencies can use to enhance the effectiveness of their collaborative efforts, such as agreeing on roles and responsibilities and establishing policies and procedures to work across organizational boundaries.

USDA has acknowledged the importance of nutrition education coordination for maximizing the reach and potential impact of federal nutrition education and nutrition assistance programs in some of its program regulations and guidance, and this emphasis is consistent with new federal requirements. For example, FNS’s SNAP-Ed plan guidance directs states to coordinate SNAP-Ed activities with other national, state, and local nutrition education, obesity prevention, and health promotion initiatives and interventions, such as WIC and EFNEP. In our 2004 review of USDA’s nutrition education efforts, we found that increased coordination, such as sharing curricula, lessons learned, and data collection tools across efforts, could help USDA’s nutrition education programs make more efficient and effective use of resources.

Consistent with this focus, the Agriculture Improvement Act of 2018 (Farm Bill) requires USDA to submit an annual report to Congress that includes

56GAO-14-704G.


58GAO-06-15 and GAO-12-1022.

59In addition, WIC regulations require state agencies to determine if local agencies or clinics can share nutrition education materials with institutions participating in the Child and Adult Care Food Program. The regulations also note that state agencies administering WIC have the option to provide nutrition education materials to institutions participating in the Child and Adult Care Food Program at no cost, as long as a written agreement for sharing such materials is in place between the relevant WIC and Child and Adult Care Food Program entities. See 7 C.F.R. §§ 246.4(a)(9) and 246.11(c)(8).

60GAO-04-528.
an evaluation of the level of coordination between SNAP-Ed, EFNEP, and other USDA nutrition education programs.\textsuperscript{61}

### USDA Has Not Fully Leveraged Its Expertise for Nutrition Education

Some USDA nutrition experts are in agencies disconnected from the nutrition education programs (see fig. 4), yet these agencies play a significant role in developing and compiling dietary guidance, research, and other information related to nutrition education (see table 2).

#### Figure 4: U.S. Department of Agriculture (USDA) Agencies Other than Those That Administer USDA’s Nutrition Education Programs Have Relevant Nutrition Expertise

**United States Department of Agriculture**

<table>
<thead>
<tr>
<th>MISSION AREAS</th>
<th>AGENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Nutrition, and Consumer Services</td>
<td>Center for Nutrition Policy and Promotion\textsuperscript{a}</td>
</tr>
<tr>
<td>Research, Education, and Economics</td>
<td>Food and Nutrition Service</td>
</tr>
<tr>
<td>Economic Research Service</td>
<td>National Institute of Food and Agriculture</td>
</tr>
<tr>
<td>Agricultural Research Service</td>
<td>Expanded Food and Nutrition Education Program</td>
</tr>
</tbody>
</table>

**Programs**

- SNAP-Ed
- WIC
- Team Nutrition
- Food Insecurity Nutrition Incentive Grant Program\textsuperscript{b}

\textsuperscript{a}Center for Nutrition Policy and Promotion was moved under the Food and Nutrition Service during a reorganization in late 2018. The Center for Nutrition Policy and Promotion is included in the agency row of the figure because the U.S. Department of Agriculture’s website indicates the Center for Nutrition Policy and Promotion is still considered an agency within the Food and Nutrition Service.

\textsuperscript{b}While the National Institute of Food and Agriculture is responsible for administering the Food Insecurity Nutrition Incentive Grant Program, the Food and Nutrition Service has been overseeing an independent evaluation of the program’s efforts.

\textsuperscript{61}USDA officials said that in response to this requirement, the Office of the FNS Administrator began collecting information on FNS’s current nutrition education activities and coordination efforts in September 2018. This effort remains ongoing and is expected to conclude in September 2019.
Table 2: Nutrition Education Efforts of U.S. Department of Agriculture (USDA) Agencies Other than Those That Administer USDA’s Nutrition Education Programs

<table>
<thead>
<tr>
<th>Agency</th>
<th>Nutrition education efforts</th>
</tr>
</thead>
</table>
| Center for Nutrition Policy and Promotion (CNPP) | • According to USDA officials, CNPP serves as a federal authority on evidence-based food, nutrition, and economic analyses, guidance, and consumer nutrition education, and its staff consists primarily of dietitians and doctorate-level nutritionists.  
• CNPP leads food, nutrition, and economic analyses that inform federal and state programs; translates science into actionable food and nutrition guidance for all Americans; and leads national communication initiatives that help advance consumers’ dietary and economic knowledge and inform choices, according to USDA officials. |
| Economic Research Service (ERS)     | • ERS conducts research related to promoting the purchase and consumption of healthy, economical foods, including recent behavioral economics-based research on promoting healthy food choices in a retail setting.  
• ERS plays a lead role in federal research on food security and food security measurement in U.S. households and communities.                                                                                                                                                                                                                          |
| Agricultural Research Service (ARS) | • ARS’s National Agricultural Library manages the website Nutrition.gov, a clearinghouse of nutrition-related information from federal government sources for consumers, and FoodData Central, an integrated food and nutrient data system targeted toward consumers, researchers, nutrition professionals, and others which provides, for example, nutrient values for foods and beverages.  
• A team of National Agricultural Library dietitians answers questions the library receives from the public on dietary guidance and other nutrition-related topics.  
• ARS funds human nutrition research centers, which aim to produce scientific evidence to help Americans make health-promoting diet choices.                                                                                                                                                                                                                           |

Source: GAO analysis of U.S. Department of Agriculture information and interviews with USDA officials. | GAO-19-572

Despite their role in developing and compiling research and information related to nutrition education, consultation with these experts by the program offices is limited, according to USDA officials, possibly because they are located in separate agencies. For example,

- Although CNPP leads a cross-cutting committee that reviews nutrition education materials developed by USDA program staff to ensure materials are consistent with the Dietary Guidelines for Americans,62

---

62 The National Nutrition Monitoring and Related Research Act of 1990 requires a review of nutrition education materials and messages for the public. The law directs the Secretaries of Agriculture and Health and Human Services to review materials to ensure consistency with the Dietary Guidelines for Americans. A Dietary Guidance Review Committee (DGRC) was formed to assist the Secretaries with this task. Within USDA, CNPP has the lead role for this work and fills a co-chair position on the DGRC along with a co-chair from HHS’ Office of Disease Prevention and Health Promotion. A representative from FNS’ Office of Policy Support also sits on the DGRC to help coordinate consumer material reviews across FNS program areas.
CNPP officials noted they have been infrequently consulted by program officials while materials are under development or activities are being implemented. This may have been in part related to organizational structure, as until recently CNPP and FNS were separate agencies that individually reported to the Office of the Under Secretary for Food, Nutrition, and Consumer Services, according to USDA officials. Some nutrition education program staff also told us they currently use the core nutrition messages on USDA’s website when developing nutrition education materials—messages that CNPP officials noted were developed in 2010 and have not been updated to reflect the latest edition of the Dietary Guidelines for Americans. This approach may lead to inefficiencies in the development of nutrition education materials.

- Although ERS conducts nutrition research, nutrition education program officials were not always aware of or using ERS resources, possibly because most of the programs reside in a different USDA mission area. A prior working group attempted to bridge the organizational divide between ERS and some of USDA’s other agencies and offices that work on nutrition education by assisting efforts to share information, but the group has since dissolved. Currently, some national and regional officials we spoke with who work on nutrition education programs had limited awareness of ERS’s nutrition education research. For example, some program officials in the national office were unsure whether ERS did work related to nutrition education and learned of ERS research through automated email updates. Further, one regional official learned of ERS data on food insecurity, which can help states meet federal requirements for

---

63Some FNS officials said that they have involved CNPP officials in the development of materials. For example, Team Nutrition officials said that they involved CNPP officials in reviews of drafts and draft messaging in three recent publications, including Fueling My Healthy Life materials, MyPlate Guide to School Lunch, and MyPlate Guide to School Breakfast.

64CNPP was moved under FNS during a reorganization in late 2018, according to USDA officials.

65As the lead USDA office for development and promotion of the Dietary Guidelines for Americans, CNPP officials told us that they took steps to ensure the nutrition messages in the latest edition of the Dietary Guidelines for Americans would be understandable for federal nutrition assistance program participants. They added that they also took steps to ensure the Dietary Guidelines for Americans, as well as the most recent MyPlate, reflect the most current consumer-tested nutrition messages.

66Officials told us this working group was comprised of staff from FNS’s Office of Policy Support, FNS nutrition assistance programs, NIFA, and ERS.
targeting nutrition education services to local areas based on their level of need, through a meeting with an outside agency.

- Nutrition education program officials were also generally unaware of ARS’s efforts related to nutrition education. Specifically, USDA nutrition education program officials we spoke to said they had little direct contact with ARS officials and were generally unaware of ARS efforts related to nutrition education.67 Further, regional officials who work on SNAP-Ed had not used or distributed ARS resources to state officials and also seemed generally unaware of ARS’s nutrition education efforts.

USDA lacks a mechanism for systematically integrating its internal nutrition expertise into its nutrition education programs, which may inhibit the effectiveness of the department’s efforts. Federal internal control standards state that agencies should use quality information from reliable internal sources, among others, to inform decision-making.68 Further, in our prior work, we found that identifying and addressing needs by leveraging resources is a leading practice for collaboration.69 Nutrition education program officials are missing opportunities to benefit from relevant expertise within USDA but outside their program offices. Failing to leverage its own internal expertise hinders USDA’s development of nutrition education materials that are informed by the latest nutrition guidance and research.

Poor nutrition contributes to costly chronic diseases that are among the leading causes of death for Americans, and USDA’s nutrition education programs and related efforts strive to educate Americans on nutrition and improve their dietary choices. Because USDA’s nutrition education programs are primarily targeted to low-income adults and children, who may receive federally-funded nutrition assistance benefits, these programs also have the potential to improve the likelihood that recipients

---

67ARS officials said they provide regular briefings a few times per year to other staff in the Research, Education, and Economics mission area but their interactions with FNS nutrition education program staff in the Food, Nutrition, and Consumer Services mission area are generally more informal and occur on an as-needed basis. Officials from NIFA, located within the Research, Education, and Economics mission area, said that they have used ARS food databases to design and update the evaluation and reporting system for EFNEP.

68GAO-14-704G.

69GAO-06-15.
will spend those benefits to obtain foods that have a positive impact on their health. However, in order to reach these goals, USDA needs to ensure that its programs are effectively educating participants to maximize the impact of the federal investment in nutrition education. Although USDA has some information on the effectiveness of its nutrition programs, without improvements to how USDA gathers information on the effectiveness of SNAP-Ed interventions nationwide, USDA will be unable to ensure one of its largest investments in nutrition education is meeting its goals.

The 2018 Farm Bill included a requirement for USDA to begin reporting annually on the level of coordination between its nutrition education programs, and USDA has acknowledged the importance of coordination and information sharing to maximize nutrition education programs’ impacts. However, the department currently lacks a formal mechanism to ensure this occurs. As a result, USDA risks missing opportunities to increase efficiency, maximize the use of federal resources, and avoid potential duplication of effort. In addition, without coordination between nutrition education program officials and others with nutrition expertise in the department, programs will develop nutrition education materials that fail to fully leverage the latest nutrition guidance and research, possibly missing opportunities to effectively influence the dietary choices of their target populations in the process.

We are making the following three recommendations to USDA:

1. The Administrator of FNS should improve how FNS gathers information on the effectiveness of SNAP-Ed interventions, in order to ensure that these interventions are meeting program goals. (Recommendation 1)

2. The Secretary of Agriculture should direct the Under Secretaries for Food, Nutrition, and Consumer Services and for Research, Education, and Economics to develop a formal mechanism, such as a designated individual or group of individuals, for providing cross-department leadership for USDA’s nutrition education efforts and facilitating cross-program information sharing. (Recommendation 2)

3. The Secretary of Agriculture should direct the Under Secretaries for Food, Nutrition, and Consumer Services and for Research, Education, and Economics to identify and implement mechanisms to fully leverage the department’s nutrition expertise for its nutrition education efforts. (Recommendation 3)
We provided a draft of this report to USDA for review and comment. In its comments, reproduced in appendix II, USDA generally agreed with our recommendations. USDA also noted that FNS has efforts underway to comply with the 2018 Farm Bill requirement that the department report annually on the level of coordination between its nutrition education programs. USDA also provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Secretary of Agriculture, congressional committees, and other interested parties. In addition, this report will be available at no charge on the GAO website at https://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-7215 or larink@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

Kathryn A. Larin
Director,
Education, Workforce, and Income Security Issues
Appendix I: Objectives, Scope, and Methodology

Our report examines the extent to which the U.S. Department of Agriculture (USDA) (1) has information on participation, expenditures, and effectiveness for its nutrition education programs; and (2) coordinates its nutrition education efforts and leverages internal nutrition expertise for these efforts. The scope of our review includes five federal programs that provide nutrition education: Supplemental Nutrition Assistance Program Education (SNAP-Ed), the Expanded Food and Nutrition Education Program (EFNEP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Team Nutrition, and the Food Insecurity Nutrition Incentive (FINI) Grant Program. Among USDA programs that provide nutrition education, four of these received the greatest amount of federal funding for nutrition education in fiscal year 2018—WIC, SNAP-Ed, EFNEP, and Team Nutrition. In addition, we included FINI because it is a grant program in which nutrition education can be a component, and the program’s goal is to incentivize healthy eating. We also reviewed USDA efforts that provide nutrition education through nutrition-related research and guidance directed at the general public.

In addition to the methods discussed below, to address both of our research objectives, we reviewed relevant federal laws, regulations, and guidance, as well as our prior work on USDA nutrition education efforts and leading practices for collaboration. We interviewed officials from relevant USDA agencies, including the Food and Nutrition Service (FNS) and the National Institute of Food and Agriculture (NIFA), which oversee the nutrition education programs described in this report. We also interviewed officials from other USDA agencies overseeing nutrition-related research and guidance, including the Agricultural Research Service, the Center for Nutrition Policy and Promotion, and the Economic

---

1USDA also provides nutrition education in other programs, including the Food Distribution Program on Indian Reservations and the Commodity Supplemental Food Program, but nutrition education funding for these programs is limited. In fiscal year 2018, the Food Distribution Program on Indian Reservations received nearly $145 million in federal funding overall and about $1 million in federal funding for nutrition education, and the Commodity Supplemental Food Program received over $238 million in federal funding but no dedicated funding for nutrition education, according to USDA budget information. In addition, according to USDA officials, the Farm to Schools Grant Program may also fund nutrition education, although the amount expended on such efforts is unknown.

Appendix I: Objectives, Scope, and Methodology

Additionally, we interviewed officials from the seven FNS regional offices, including officials who work on SNAP-Ed and the Child and Adult Care Food Program. We also interviewed representatives of selected organizations knowledgeable about USDA’s nutrition education efforts. We assessed USDA’s efforts to collect information on its nutrition education programs, coordinate its nutrition education efforts, and leverage internal nutrition expertise against GAO’s standards for internal controls in the federal government.

To address the first objective, we analyzed USDA data on nutrition education participation. Two of the nutrition education programs, SNAP-Ed and EFNEP, collect data on direct education participation. We analyzed SNAP-Ed total direct education participation data for fiscal years 2010 through 2018 collected through SNAP-Ed’s data reporting system, the Education and Administrative Reporting System (EARS). We analyzed EFNEP total direct education participation data for fiscal years 2010 through 2018. These data are reported through the Web-based Nutrition Education, Evaluation and Reporting System (WebNEERS), an integrated data collection system, sponsored by NIFA, and used at the county, state, and federal levels. To assess the reliability of the SNAP-Ed and EFNEP participation data, we interviewed FNS and NIFA officials and reviewed relevant documentation. We determined that these data were sufficiently reliable for the purpose of reporting the number of direct education participants in SNAP-Ed and EFNEP.

We also reviewed available USDA data on the number of people reached by nutrition education efforts in SNAP-Ed and EFNEP other than through direct participation. SNAP-Ed collects information on the number of people reached by nutrition education efforts that are not direct education.

---

3In addition, we interviewed a senior official from the Office of the Chief Scientist, which coordinates research related to science and education across USDA.

4We also interviewed a former FNS regional official who was involved in the development of the SNAP-Ed Evaluation Framework.

5These organizations include the Association of SNAP Nutrition Education Administrators, Bipartisan Policy Center, Mathematica Policy Research, National Collaborative on Childhood Obesity Research, and the University of North Carolina-Chapel Hill Center for Health Promotion and Disease Prevention.

such as policy, systems, and environmental change interventions and social marketing. However, states face challenges with tracking individuals reached by these education interventions, and these data are likely to include duplicate records of individuals, according to USDA officials. Therefore, we concluded that these data were not sufficiently reliable for the purpose of reporting the number of people indirectly reached by SNAP-Ed. EFNEP also collects information on indirect education reach. This information tracks other family members of adults who participated in direct education who therefore may also benefit from the information shared, according to USDA officials. To assess the reliability of these data, we interviewed NIFA officials and reviewed relevant documentation. We determined that these data were sufficiently reliable for the purpose of describing the number of people indirectly reached by EFNEP.

Because USDA officials consider the total number of WIC participants to be the best proxy for WIC nutrition education participation, as all WIC participants are offered nutrition education, we analyzed WIC total participation, and participation by women, infants, and children, for fiscal years 2010 through 2018. 7 These data are reported on the FNS-798/798A Financial Management and Participation Report form, which contains programmatic and financial data reported by state agencies, Indian Tribal Organizations, and U.S. territories through the Food Programs Reporting System (FPRS). To assess the reliability of these data, we interviewed FNS officials and reviewed relevant documentation. We determined that these data were sufficiently reliable for reporting the number of WIC participants offered WIC nutrition education.

Data were unavailable on participation for Team Nutrition—a program which provides training and technical assistance to child nutrition program operators, and creates and disseminates materials for child nutrition program participants. As a proxy measure for program reach, we analyzed data on nutrition education materials disseminated to participants and the online views and downloads of nutrition education materials. To assess the reliability of these data, we interviewed FNS officials and reviewed relevant documentation. We determined that these data were sufficiently reliable for the purpose of reporting the number of Team Nutrition materials disseminated.

7WIC state agencies are required to offer nutrition education.
Appendix I: Objectives, Scope, and Methodology

Expenditure Data
To address the first objective, we also analyzed WIC, SNAP-Ed, EFNEP, Team Nutrition, and FINI total nutrition education expenditure data for fiscal year 2017, the most complete data available as of April 2019. Like WIC participation data, WIC expenditure data are reported on the FNS-798/798A Financial Management and Participation Report form through FPRS. Federal SNAP-Ed and Team Nutrition expenditure data are reported on the SF-425 form, which state agencies submit quarterly, also through FPRS. USDA tracks nationwide expenditures for EFNEP and FINI through NIFA’s payment system, Automated Standard Application for Payments; grants management system, Cooperative Research, Education, and Extension Management; and financial management system, Financial Management Modernization Initiative. To assess the reliability of these data, we interviewed officials from FNS and NIFA and reviewed relevant documentation. We determined that these data were sufficiently reliable for the purpose of reporting nationwide expenditures for these five programs.

Program Evaluations and Additional Program Data
To determine what information USDA has on the effectiveness of its nutrition education programs, we reviewed relevant program evaluations from USDA issued within the last 10 years. We selected these evaluations based on information we obtained from USDA and other knowledgeable officials through interviews and relevant documents.

To provide additional context on program operations for SNAP-Ed and EFNEP, we reviewed various program data. We analyzed the EARS data on the total number of SNAP-Ed implementing agencies, including the number of land-grant universities that were implementing agencies, and the types of education provided by SNAP-Ed programs in fiscal year 2018. For EFNEP, we reviewed data on participant outcomes, reported

---

8USDA collects data on expenditures from states and grantees. USDA permits states to expend SNAP-Ed and Team Nutrition funds over a 2-year period and EFNEP funds over a 5-year period, according to USDA officials. As a result, in EFNEP for example, USDA officials said expenditures for fiscal year 2018 were not finalized at the time of our review due to the disbursement of funds late in the year. Thus, as of April 2019, fiscal year 2017 expenditure data were the most complete data available across the USDA nutrition education programs we reviewed.

9In this report, references to nationwide expenditures are intended to be references to state and grantee expenditures.
to WebNEERS, for fiscal year 2018. To assess the reliability of these data, we interviewed officials from FNS and NIFA and reviewed relevant documentation. We determined that these data were sufficiently reliable for the purpose of our reporting objectives.

Interviews with Land-Grant University Representatives

To gain the perspective of officials involved in the implementation of nutrition education efforts, we interviewed representatives of four land-grant universities. Land-grant universities are the sole provider of EFNEP and one of the main providers of SNAP-Ed. We judgmentally selected a non-generalizable sample of four land-grant universities based on various criteria, including the recommendations of knowledgeable officials, geographic dispersion, and other factors, such as the percentage of the university’s state population in poverty. Two of the universities we selected solely administer EFNEP and two administer both EFNEP and SNAP-Ed. We gathered information from these land-grant university representatives on how they provide nutrition education through their programs and the extent to which they coordinate with other SNAP-Ed programs in their county and state, as well as with other USDA nutrition education programs. We also gathered information on support they receive from the USDA national office for coordination, if any; their perspectives on challenges USDA faces to coordinating nutrition education across its programs, if any; and their views on opportunities for USDA to improve coordination across nutrition education programs. Information collected from the land-grant university representatives cannot be generalized to all land-grant universities nationwide.

---

10Participants complete questionnaires on their food choices, physical activity levels, and recall of dietary information at entry and exit points in the program to help measure participant behavior change. Participant responses to the standard evaluation questions are input by each program into WebNEERS.

11The land-grant university system includes federally-funded universities and colleges that provide extension services to address public needs.

12Specifically, we considered U.S. Census Bureau data on the percentage of people in poverty, by state, from 2015 through 2017. Three of the four selected universities were located in states with poverty rates that were greater than the national rate, on average, across those years.

13The universities we selected were Alcorn State University in Lorman, Mississippi and Langston University in Langston, Oklahoma, which solely administer EFNEP, and North Carolina State University and University of Illinois at Urbana-Champaign, which administer both EFNEP and SNAP-Ed.
We conducted this performance audit from December 2018 to July 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
DATE: July 11, 2019

AUDIT NUMBER: GAO-19-572

TO: Kathryn Larin
   Director, Education, Workforce, and Income Security Issues
   Government Accountability Office

FROM: Brandon Lipps
   Administrator
   Food and Nutrition Service

SUBJECT: Nutrition Education: USDA Actions Needed to Assess Effectiveness, Coordinate Programs, and Leverage Expertise

Thank you for the opportunity to review and comment on the Government Accountability Office’s (GAO) draft report titled, Nutrition Education: USDA Actions Needed to Assess Effectiveness, Coordinate Programs, and Leverage Expertise (GAO-19-572, job code 103204).

The United States Department of Agriculture (USDA) acknowledges GAO’s work to examine the extent to which USDA’s nutrition education efforts help educate Americans on nutrition and improve their dietary choices. USDA generally concurs with the three recommendations GAO is making that ask the Department to improve how it gathers information on SNAP-Ed effectiveness, develop a formal mechanism for coordinating nutrition education across the Department, and take steps to formally leverage the Department’s expertise for its nutrition education efforts.

Specific to the Food and Nutrition Service (FNS), efforts were already underway during the fieldwork stage of this audit to ensure compliance with the new reporting requirement that was included in the 2018 Farm Bill regarding coordination on nutrition education. The Department will further elaborate on those efforts and provide a detailed response to each recommendation within 60 days of the final report’s issuance. Technical comments on the draft from both FNS and the National Institute of Food and Agriculture (NIFA) are being provided separately.

The Department appreciates the opportunity to review this report prior to publication. Please contact Mark Porter, Director of the FNS Office of Internal Controls, Audits and Investigations, at (703)305-0901 with any questions or if you would like to obtain additional details.
Appendix III: GAO Contact and Staff Acknowledgments

<table>
<thead>
<tr>
<th>GAO Contact</th>
<th>Kathryn A. Larin at (202) 512-7215 or <a href="mailto:larink@gao.gov">larink@gao.gov</a></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Staff Acknowledgments</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition to the contact named above, Rachel Frisk (Assistant Director), Kristen Jones (Analyst-in-Charge), and Sara Rizik made key contributions to this report. Also contributing to this report were Monika Gomez, Stacy Ouellette, Almeta Spencer, Rachel Stoiko, Curtia Taylor, Walter Vance, Sarah Veale, and Adam Wendel.</td>
</tr>
</tbody>
</table>
### GAO’s Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO’s commitment to good government is reflected in its core values of accountability, integrity, and reliability.

### Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO’s website (https://www.gao.gov). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to https://www.gao.gov and select “E-mail Updates.”

### Order by Phone

The price of each GAO publication reflects GAO’s actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO’s website, https://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

### Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube. Subscribe to our RSS Feeds or E-mail Updates. Listen to our Podcasts. Visit GAO on the web at https://www.gao.gov.

### To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:
Website: https://www.gao.gov/fraudnet/fraudnet.htm
Automated answering system: (800) 424-5454 or (202) 512-7700

### Congressional Relations


### Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800, U.S. Government Accountability Office, 441 G Street NW, Room 7149, Washington, DC 20548

### Strategic Planning and External Liaison