



### **ACKNOWLEDGMENTS**

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### **Overview**

## **Gus Schumacher Nutrition Incentive Program (GusNIP)**

The Gus Schumacher Nutrition Incentive Program (GusNIP) aims to increase the purchase of fruits and vegetables (FVs) and the use of fresh FV prescriptions by offering incentives that help offset rising food costs for American families. GusNIP benefits American farmers and food retailers by driving consumer demand for FVs and increasing profits, while also improving the health of Americans.

Between September 1, 2023, and August 31, 2024, GusNIP helped American families purchase more than \$54 million of FVs, generating more than \$112 million in economic impact. The program connected American farmers, food retailers, and families across more than 5,000 locations in 40 states and one territory. As in prior years (2019-2023), GusNIP participants reported eating more FVs and decreased food insecurity. For the first time a new analysis of electronic health records shows improvements in participants' biomarkers for health.

### **About GusNIP**

GusNIP is administered by the United States Department of Agriculture (USDA), National Institute of Food and Agriculture (NIFA) in collaboration with the Food and Nutrition Service (FNS). It has three competitive grant programs:

- Nutrition Incentive Program (NI):
  Provides matched incentives to individuals participating in USDA's Supplemental Nutrition Assistance Program (SNAP) or Nutrition Assistance Program (NAP) for the purchase of FVs without added sugars, sodium, or fats.
- Produce Prescription Program (PPR):
  Coordinates with a healthcare entity, such as a clinic, to provide a prescription for free or reduced cost fresh FVs to people with low income and at risk for diet-related chronic disease.
- The Nutrition Incentive Program
  Training, Technical Assistance,
  Evaluation, and Information Center
  (NTAE): Improves the efficiency and
  effectiveness of GusNIP projects through
  training, technical assistance, reporting,
  and evaluation. The NTAE conducts a
  national evaluation to measure impact
  across all GusNIP-funded projects and
  disseminates the results in this report and
  other products.

### **About this Report**

This year five annual report highlights the national impact of GusNIP, the successes of NI and PPR projects, and the accomplishments of the NTAE and Nutrition Incentive Hub. Year five (Y5) findings are reported across all GusNIP portfolio awards, including those supported by the Gus Schumacher Nutrition Incentive Program COVID Relief and Response (GusCRR) grants program and USDA's American Rescue Plan Act (ARPA) funding.<sup>2</sup>

During year five, NIFA funded 19 new NI proposals totaling \$41.8 million and 11 new PPR proposals totaling \$5.2 million. In addition, the NTAE received \$7 million from NIFA to ensure projects maximize dollars reaching families, farmers, and food retailers. These 30 new grantees were onboarded by the NTAE, which supported 196 active awards in Y5. **Table 1** displays the count of awards by program year, award type (PPR vs. NI), and mechanism. This report presents aggregate results from projects funded by all award mechanisms and refers to all GusNIP projects, regardless of mechanism, as NI or PPR projects. For example, results for GusCRR PPR and ARPA PPR are not distinguished. For a glossary of acronyms/abbreviations, see **Appendix 1**.

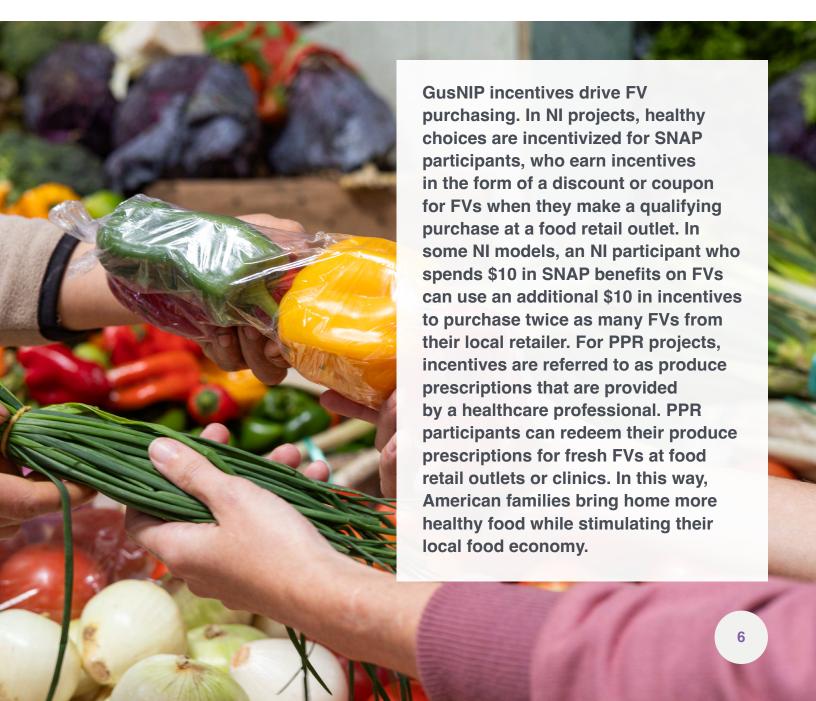
<sup>&</sup>lt;sup>1</sup> Lewis M, Herron LM, Chatfield MD, et al. *Healthy food prices increased more than the prices of unhealthy options during the COVID-19 pandemic and concurrent challenges to the food system.* Int J Environ Res Public Health. 2023;20(4):3146. Published 2023 Feb 10. <a href="https://doi:10.3390/ijerph20043146">https://doi:10.3390/ijerph20043146</a>

<sup>&</sup>lt;sup>2</sup> **ARPA PPR awards included three types:** 1) PPR Meritorious (highly ranked, unfunded applications from FY21), 2) PPR Enhancement (additional funding to existing PPR awards), and 3) PPR Standard (funded applications from FY22).

Table 1. Number of New and Active GusNIP Awards in Year 5 by Award Mechanism

Award Mechanism	Y5 New Awards	Y5 Total Active Awards
GusNIP NI	19	61
GusNIP PPR	11	32
GusCRR NI		16
GusCRR PPR		15
ARPA PPR		72
Total	30	196

Americans in nearly every state and a growing number of territories rely on GusNIP to buy more FVs for themselves and their families, providing them with resources to consume healthier foods. Moreover, the program increases consumer purchasing power for locally sold produce, which also boosts sales for farmers and food retailers. By linking nutrition assistance with public health and agricultural support, GusNIP creates a win-win situation for farmers, food retailers, and consumers.



### **GusNIP Training, Technical Assistance, Evaluation, and Information Center (NTAE)**

The GusNIP NTAE aims to maximize GusNIP investments by increasing the efficiency and effectiveness of projects. The NTAE works with grantees, applicants, and their partners to streamline implementation, understand and apply best practices, and reach more families, farmers, and food retailers. **Center for Nutrition & Health Impact** (CNHI) is the public health nutrition research and evaluation nonprofit that leads the GusNIP NTAE in a cooperative agreement with **USDA NIFA**. CNHI partners with **Fair Food Network**, the **University** of California San Francisco, and a coalition of national partners, referred to as the **Nutrition Incentive Hub**, to provide comprehensive reporting, evaluation, technical assistance, and information support to GusNIP applicants and grantees (Appendix 2). Specialists at the GusNIP NTAE and Nutrition Incentive Hub provide tailored guidance for successful project implementation and guide efforts to evaluate the impact of GusNIP using a set of shared measures across all NI and PPR projects.3 Throughout the remainder of this report, the GusNIP NTAE and Nutrition Incentive Hub are collectively referred to as "NTAE."

NTAE services are based on best practices and tailored to the specifics of NI and PPR approaches. As illustrated in **Figure 1**, the NTAE supports individual NI and PPR projects to optimize GusNIP implementation and to measure and report key outcomes and impacts. Findings from individual projects are aggregated by the NTAE to demonstrate the national impact of GusNIP and are disseminated to USDA NIFA, USDA FNS, Congress, grantees, and other interested parties.

**Figure 1.** NTAE's Role in Supporting NI and PPR Projects and Demonstrating Impact



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<sup>&</sup>lt;sup>3</sup> In this report, the term "project" refers to a set of activities and deliverables funded by an NI or PPR award.



# **Core Measures: Nutrition Incentive and Produce Prescription Projects**

NI and PPR grantees collaborate with the NTAE to collect data that describe the benefits of GusNIP to participants, partnering sites, and communities. These core measures enable the NTAE to determine the extent to which GusNIP affected key outcomes, such as FV purchases, FV intake, and economic impact. These data also help guide iterative improvements in GusNIP operations, such as reaching more people and maximizing dollars spent on incentives for FVs. Core measures provide the NTAE with evidence to demonstrate the collective impact of GusNIP and to enhance program operations that lead to even greater successes and efficiencies.

Participant-level core measures (**Appendix 3**) were used to assess the impact of NI and PPR projects on FV intake, food security, and other indicators of health. NI projects collected core measures via a survey cross-sectionally and PPR projects used a pre/post follow-up approach. See **Appendix 3** for a detailed account of methods used to collect and analyze participant-level core measures data. Site-level core measures (**Appendix 4**) were used to provide descriptive information about project implementation, incentive utilization, and project reach. See **Appendix 4** for more information on the methods used to collect and analyze site-level core measures data.

Sites are the locations where GusNIP projects are administered. **GusNIP sites are divided into three types:** 



Farm Direct (FD) Sites: farmers markets, farm stands, community supported agriculture (CSA), and mobile markets.



Brick-and-Mortar (B&M) Sites: grocery stores, supermarkets, corner stores, and wholesale distributors.



Healthcare Clinics (clinics): Federally Qualified Health Centers (FQHC), primary care offices, hospitals, and Veteran's Affairs hospitals/clinics.

NI and PPR projects include FD and B&M sites where participants receive and redeem incentives. PPR projects also include healthcare clinics where participants receive and/or redeem incentives.

<sup>&</sup>lt;sup>4</sup> For both NI and PPR projects, enrollment, incentive distribution, and incentive redemption occur at food retail outlets and clinics (i.e., sites). Sites are referred to as "firms" in the GusNIP Request for Applications. All NI sites are SNAP-authorized food retail outlets.

# GusNIP Investments and Impact

This report builds on the Y1-Y4 reports, and demonstrates the longstanding and far-reaching achievements of GusNIP. In particular, the GusNIP Year Five Impact Findings Report addresses geographic reach to individual participants and American communities, dollar amount of incentives distributed to families in need, dollar amount of incentives redeemed for FVs, and economic impact of GusNIP on local communities.

### **Description of 2023-2024 Grantees**

In year five, USDA NIFA invested in new GusNIP NI and PPR projects in 18 states and Washington, D.C. NI awards ranged from \$100,000 to \$8.4 million and spanned one to four years. PPR awards totaled around \$500,000 each and ranged from two to three years. Eligible entities for GusNIP NI and PPR projects are limited to governmental agencies and nonprofits classified as communitybased organizations, healthcare organizations, and universities or other higher education organization. Seventy percent or 21 newly awarded grantees represented community-based organizations (Appendix 5). The remaining 30 percent of grantees were healthcare organizations, state and local government agencies, universities, and organizations serving tribal populations.

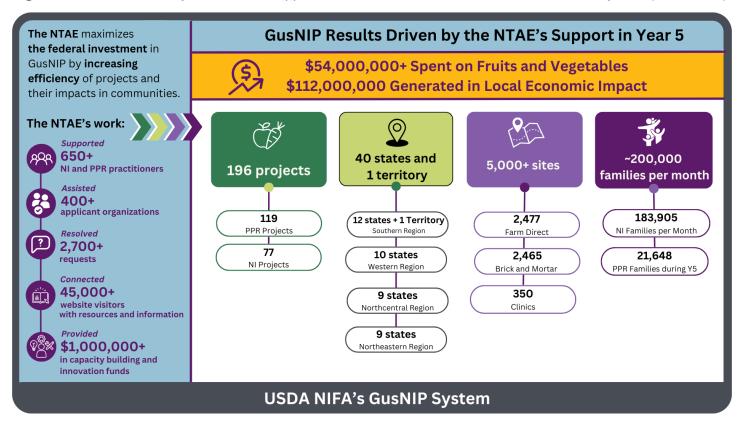
Project models used to distribute incentives or produce prescriptions to participants varied across grantees. PPR projects often used vouchers, debit cards, produce boxes, or other mechanisms to distribute produce prescriptions ranging from \$36 to \$150 per month depending on household size. project goals, and budget. NI projects used a variety of mechanisms to distribute incentives, including paper and digital coupons, loyalty accounts, and produce boxes. Incentives provided by NI projects ranged from \$5 to \$25 per day, with most projects using a 1:1 match (e.g., spend \$5 and get \$5 for FVs). Details about funding amounts, geographic reach, GusNIP site types, NI/PPR project models, and links to the descriptions of projects awarded in year five are available in **Appendix 5**.



### NTAE's Role in Maximizing GusNIP Effectiveness and Efficiency

During year five, support and resources provided by the NTAE not only helped maximize the federal investment in GusNIP but also increased NI and PPR project efficiency and effectiveness in communities (**Figure 2**).

Figure 2. Results Driven by the NTAE's Support in Year Five within the USDA NIFA GusNIP System (2023-2024)



Through evaluation support, the NTAE empowered GusNIP grantees to improve projects and identify efficiencies to achieve their project goals. In year five, the NTAE advised projects regarding best practices relevant to reporting and evaluation; engaged with NI and PPR projects to support focused and rigorous evaluations; and expanded evaluation capacity for PPR projects to understand data privacy rules and establish data use agreements for sharing Protected Health Information (PHI) and Personally Identifiable Information (PII) in evaluation. In addition, the NTAE continued to develop customized evaluation resources to address key GusNIP needs. This included enhancing the Nutrition Incentive Hub Website to improve user experience, streamline data collection, facilitate access to key resources, and offer new tools to support the GusNIP community.

"[NTAE] helped us not only meet our participant survey collection requirements but to do so ahead of schedule."

-Southern Region NI Grantee

To drive project success, strengthen local capacity, and maximize positive impacts on American families and communities, the NTAE supported implementation and administration of GusNIP projects. The NTAE provided templates, tools, and multimodal advising to organizations applying for GusNIP and other funding; facilitated learning events to foster ongoing GusNIP project improvement; provided real-time collaborative platforms to address challenges, share best practices, discuss emergent topics, and enhance capacity; and supported organizations as they scaled-up projects to integrate incentives directly onto SNAP Electronic Benefit Transfer (EBT) cards.

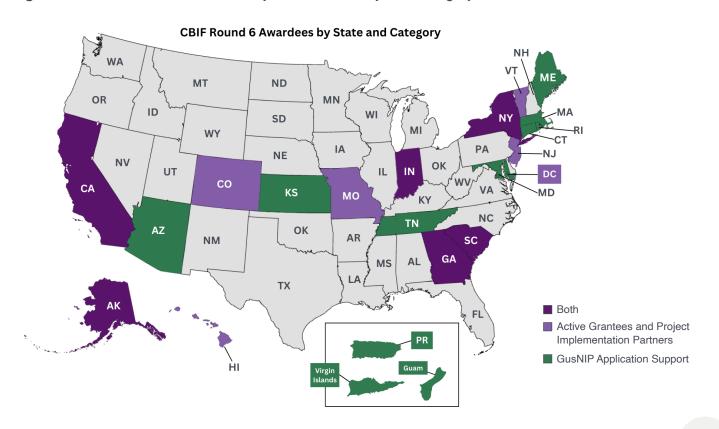
During year five, the NTAE invested \$1,293,316 through the Capacity-Building and Innovation Fund (CBIF) to prepare organizations for first-time GusNIP applications and to support active GusNIP projects with additional funds to build capacity and innovate (see <u>Figure 3</u> for the states and territories where CBIF grants were awarded).

Awards ranged from \$16,000 to \$50,000 and fostered innovation in food retail technology, produce delivery to rural communities, and engagement of veterans. These awards provided real-time resources needed to adapt and pivot as awardees implemented their projects, making them more effective and efficient.

"Through the CBIF grant, we are using a community-centered approach to strengthen our PPR program. The project is helping us to understand food preferences, address challenges faced by rural farm and food businesses, and explore practical ordering and delivery solutions. By bringing together the voices of patients and vendors to create dialogue and understanding, we're working to ensure that our program builds sustainable connections and uplifts both communities."

-Northeast Region PPR Grantee

Figure 3. CBIF Round Six Awardees by State or Territory and Category of Award



### **GusNIP Reach: Growth Over Time**

This report describes two main aspects of GusNIP reach:

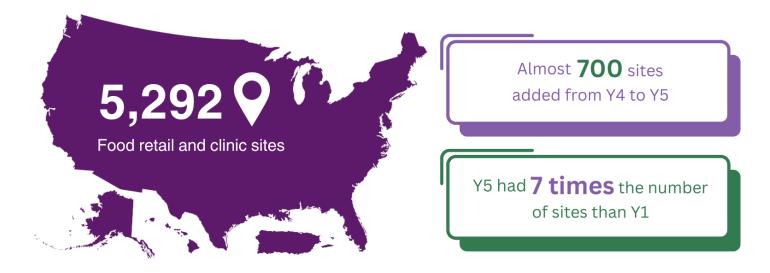
- The number of participants served by NI/PPR projects at any given time (detailed in the NI and PPR sections below.)
- 2 The number of GusNIP sites in operation, or "active," during the reporting period.

Across the country, the number of active NI and PPR sites has grown considerably since the launch of GusNIP in 2019 (Y1). In year five, GusNIP-funded NI and PPR projects grew to include **5,292 sites that offered incentives for FVs in local communities.** 



This is almost 700 new NI and PPR sites compared to year four and nearly seven times the number of locations available in year one (Figure 4). This growth in reach is important because it means there are more places where participants can purchase FVs for their families, and there are more economic opportunities being created in local communities.

Figure 4. GusNIP Sites in Year Five (2023-2024): Growth Over Time



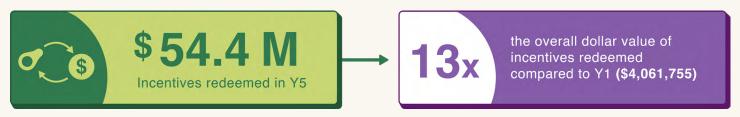
The NTAE also supported grantees to expand reach and promote efficient resource allocation by launching the **GusNIP Site Map**. Updated biannually, the interactive map displays the location of NI and PPR sites, helping users identify regions and communities that may benefit from additional food retail outlets or clinics that offer GusNIP incentives. By highlighting regions with limited GusNIP programming, the map enables grantees, government officials, and policymakers to identify gaps in coverage, strategically expand programs where they are needed most, and make data-driven decisions that enhance food access and promote healthier communities.

### **GusNIP Incentives Distributed and Redeemed**

Put simply—when grantees distribute GusNIP incentives and families redeem them, more people have nutritious FVs to eat and communities benefit from local spending. Since year one, there has been remarkable growth in the dollar amount of incentives distributed and redeemed.<sup>5</sup> Compared to year one, year five grantees reported almost 17 times the overall dollar value of incentives distributed (\$85,394,737 in Y5 vs. \$5,061,863 in Y1) and over 13 times the overall dollar value of incentives

redeemed (\$54,362,063 in Y5 vs. \$4,061,755 in Y1; Figure 5). As a result of these increases, families living below the federal poverty line brought home more FVs, which led to better diets, greater levels of household food security, and improved health. Redeemed incentives also helped to support American businesses and stimulate local economies. Unused incentives were reallocated and made available to other eligible families.

Figure 5. GusNIP Incentives Redeemed in Year Five (2023-2024): Growth Over Time



It is important to note that the dollar amount of incentives distributed and redeemed includes federal grant funding and match funding.<sup>7</sup> This is distinct from the dollar amount of federal funding spent on all project costs, which does not include match funding. As of August 31, 2024, federal grant dollars invested across all active, non-pilot NI and PPR projects totaled \$48,894,366.94. Approximately 64 percent of these funds (\$31,274,629.86) were provided to NI and PPR participants as incentives for FVs to help American families living below the federal poverty line stretch food budgets. **Total dollars spent on incentives varied by award mechanism:** 

- **1 GusNIP** = \$27,430,243 (73% allocated to incentives)<sup>8</sup>
- **Q GusCRR** = \$12,501,737 (64% allocated to incentives)
- **3** ARPA PPR = \$8,962,387 (35% allocated to incentives)

The percentage of funds distributed as incentives was higher in GusNIP year five (64%) than in year four (59%), particularly among GusNIP NI and PPR projects (+15% Y4 to Y5) and ARPA PPR projects (+24% Y4 to Y5). These positive shifts in the percentage of federal

funds spent on incentives were likely attributed to several factors, including the increased operational efficiency of GusNIP projects partially due to NTAE support.<sup>6</sup> In future years, the percentage of ARPA funding spent on direct incentives is expected to continue increasing as more ARPA projects launch their initiatives.

<sup>&</sup>lt;sup>5</sup> Incentives redeemed include both federal grant dollars and match funding. Dollar-for-dollar match funding is required for all GusNIP-funded NI projects. Grantees may meet their match requirement through cash and/or in-kind contributions, including third-party in-kind contributions fairly evaluated, including facilities, equipment, or services.

<sup>&</sup>lt;sup>6</sup> The Gus Schummacher Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center (GusNIP NTAE) Progress Report to Congress. Govinfo. Accessed April 10, 2025. <a href="https://www.govinfo.gov/app/collection/cmr/">https://www.govinfo.gov/app/collection/cmr/</a> National%20Institute%20of%20Food%20and%20Agriculture

<sup>&</sup>lt;sup>7</sup> Incentives redeemed include both federal grant dollars and match funding. Dollar-for-dollar match funding is required for all GusNIP-funded NI projects. Grantees may meet their match requirement through cash and/or in-kind contributions, including third-party in-kind contributions fairly evaluated, including facilities, equipment, or services.

<sup>&</sup>lt;sup>8</sup> Total federal dollars invested in direct incentives does not equal total dollars of incentives spent. Spent incentives include match funding, which consists of non-federal dollars.

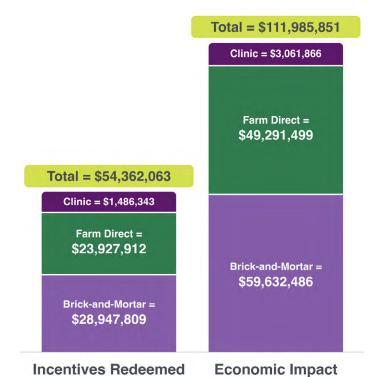
### **Economic Impact of NI and PPR Projects**

In year five, GusNIP NI and PPR projects generated the largest total local economic impact.

Families who participated in GusNIP purchased more than \$54 million worth of FVs, which resulted in an estimated \$112 million impact on local economies. The economic impact of GusNIP has increased more than 14-fold since vear one9, demonstrating a substantial return on the federal investment. Figure 6 depicts total NI and PPR incentives redeemed at brick-andmortar, farm direct, and clinic sites, as well as the corresponding economic impact.

This report uses the same methodologies as previous reports (see Appendix 4) to summarize the total economic impact of NI and PPR projects and maintain consistency. Practitioners wanting to more precisely estimate and communicate the economic impact of NI projects should explore the NTAE-developed **GusNIP NTAE Nutrition** Incentive Economic Impact Calculator. It accounts for economic factors attributed to NI projects. considers state-specific factors, and generates a geographically precise economic impact.

Figure 6. GusNIP's Local Economic Impact in Year Five by Site Type (2023-2024)



economic impact = \$111,985,851 across 5,292 sites.

"Last year, our [NI project] redemption soared by 36 percent, enabling us to significantly enhance our product offerings. We've broadened our selection to include a diverse array of fresh fruits and vegetables, greatly benefiting our lower-income community. [The NI project] now constitutes 20 percent of our daily sales and has proven to be a highly successful initiative for our store. Customer satisfaction with the program is at an all-time high. Initially met with skepticism and disinterest, the program is now eagerly anticipated by our customers, who appreciate the value of their coupons. As a result, we're able to better promote healthy eating and increase the consumption of nutritious meals."

-Western Region Grocery Store Manager



<sup>&</sup>lt;sup>9</sup> Y1 economic impact = \$7.966.290 across 773 sites vs. Y5

# **GusNIP Nutrition Incentive (NI) Projects**

Data gathered by the Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center (NTAE) demonstrated that NIs improved fruit and vegetable (FV) intake, household food security, and perceived health.

NI projects offer matched incentives to individuals using Supplemental Nutrition Assistance Program (SNAP) or Nutrition Assistance Program (NAP) benefits. NI incentives provide discounts or coupons to participants when they purchase FVs at participating food retail outlets. For instance, in a 1:1 SNAP for FVs model, an NI participant who spends \$10 in SNAP benefits would receive an additional \$10 worth of FVs, effectively doubling their purchasing power and enhancing their family's access to nutritious foods.

All NI grants awarded between 2019-2023 and active during GusNIP year five (Y5; September 1, 2023, to August 31, 2024) collected and shared core measures data<sup>10</sup> with the NTAE. Core measures provide information related to sites where NI projects operated as well as the impact of those projects on participant and community outcomes. With this information, the NTAE tracked geographical reach for various regions, communities, and individuals; quantified the dollar amount of incentives distributed and redeemed; and explored how sites implemented NI projects.

# GusNIP at NI Sites: Operation and Geographical Reach

Grantees submitted site-level data for 54 NI awards using the Nutrition Incentive Hub secure web portal. Site-level data provide context for how NI projects were implemented across the United States. Researchers and practitioners use site-specific results to assess variations in project geographical reach, project components, and effectiveness across different geographic, economic, and demographic settings. These insights help identify best practices, challenges, and other factors that influence program success. Additionally, site-level data enable NI projects to tailor interventions to meet the unique needs of community members and ensure ongoing impact. Evaluating site-level findings strengthens the impact of NI initiatives by supporting data-driven decision-making and continuous improvement in project impact and efficiency. See **Appendix 4** for descriptions of the methods and measures for site-level reporting and **Appendix 6** for all NI site-level results tables.

"For us as farmers, the program has been incredibly rewarding. It has allowed us to support more families in our community while also increasing our sales. By participating in [the NI project], we're able to connect with people who may not have been able to access fresh, locally grown produce otherwise. It feels good knowing we're part of a program that truly makes a difference in people's lives."

-North Central Region Farmer



<sup>&</sup>lt;sup>10</sup> GusNIP Pilot Projects were not required to report core measures data.



### Where Did NI Projects Operate?

In year five, GusNIP NI projects expanded access to FVs via incentives across 3,981 sites, including 2,328 farm direct (FD) and 1,653 brick-and-mortar (B&M) sites (<u>Table 2</u>). Since GusNIP's inception, the proportion of B&M NI sites has increased from 25 percent of sites in year one to over 40 percent in years four and five. (<u>Figure 7</u>). The location of NI sites in year five included urban (79.3%), rural (20.8%), and tribal (0.8%) geographies (<u>Table 2</u>).

The expansion of GusNIP sites directly addresses ongoing challenges that families living below the federal poverty line face when attempting to access food outlets with healthy options like FVs. 11,12 The increased number of NI sites means that eligible individuals and their families can more easily purchase FVs at nearby grocery stores, farmers markets, or other participating food retail outlets.

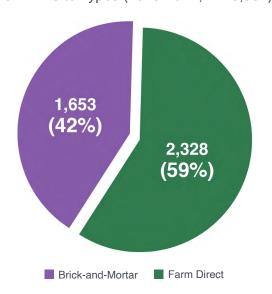
<sup>11</sup> Ohri-Vachaspati P, DeWeese RS, Acciai F, et al. *Healthy food access in low-income high-minority communities: a longitudinal assessment—2009–2017.* Int J Environ Res Public Health. 2019 Jul;16(13):2354. <a href="https://doi.org/10.3390/ijerph16132354">https://doi.org/10.3390/ijerph16132354</a>

**Table 2.** Geographies Where NI Sites Were Located (2023-2024; n = 3,885\*)

Location	N (%)
<b>Rural</b> 795 (20.5%)	
Rural and Tribal	10 (0.3%)
Urban	3,060 (78.8%)
Urban and Tribal	20 (0.5%)
Total	3,885

\*The number of NI site locations in Table 2 (n = 3,885) is less than the number of NI sites in Figure 7 (n = 3,981) because multiple sites may operate in the same location if multiple projects use the same site location to distribute or redeem incentives.

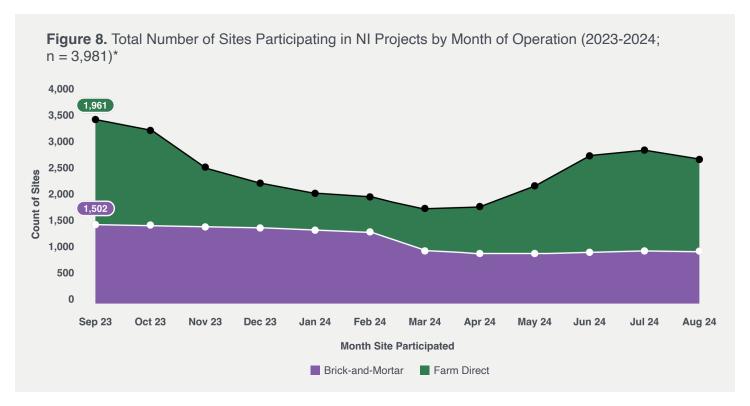
**Figure 7.** NI Site Types (2023-2024; n = 3,981)



<sup>&</sup>lt;sup>12</sup> Madlala SS, Hill J, Kunneke E, Lopes T, Faber M. *Adult food choices in association with the local retail food environment and food access in resource-poor communities: a scoping review.* BMC Public Health. 2023 Jun 6;23(1):1083. <a href="https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-15996-y">https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-15996-y</a>

The number of NI sites active in year five (n = 3,981; **Figure 8**) increased by 9 percent from year four (n = 3,660). Due to the seasonality of farming and timing of peak harvesting months, FD sites were more prevalent in the fall, spring, and summer than in the winter months. In contrast, the number of B&M sites stayed relatively constant throughout the year, with a small decline between February and March 2024 (**Figure 8**).

GusNIP FD versus B&M site patterns are consistent with previous years and reflect seasonal variation in incentive distribution and redemption at FD sites due to changes related to growing and harvesting seasons.



\*3,981 sites reported incentive distribution and/or redemption data to the NTAE. The number of participating sites represents a monthly total (e.g., September 2023 is 3,463), not a cumulative count of sites across the reporting year.

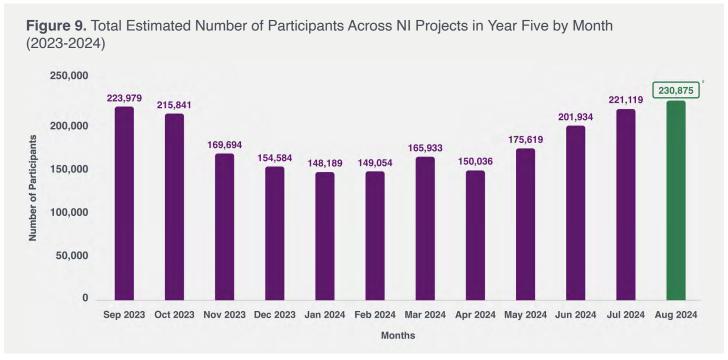
### How Many People Did NI Projects Reach?

This report defines reach as the number of participants served by NI projects at any given time. NI sites were asked to indicate the number of unique participants served monthly. Tracking the unique number of participants and overall program reach of NI projects is crucial for a few reasons. First, it measures program utilization, helping partners understand the scale and effectiveness of their efforts to increase FV access.

Additionally, tracking participation trends over time can inform program improvements, such as identifying barriers to access or engagement. From a funding and policy perspective, demonstrating NI project reach with concrete numbers strengthens the case for continued investment and expansion by showing the direct impact on food security and public health. Lastly, having reliable participant reach data allows decision makers and interested parties to discern the actual impact of NI projects on American families.

Although reach is an important measure of NI project effectiveness, collecting precise reach data was not always straightforward. Some sites were unable to track unique participants reached due to point-of-sale system limitations, confidentiality requirements when tracking SNAP transactions, or technology limitations of cash registers. Understanding unique reach is further complicated since FVs acquired with incentives reach individuals and their households. To address the challenge of tracking unique participants, the NTAE developed a method to estimate reach based on reports from those NI sites that reported unique participants reached as well as the dollar amount of incentives redeemed.

Proxy estimates of NI participants reached each month during year five were derived using NI site data from year one through year four. The NTAE estimated that an average of 183,905 NI participants were reached monthly during year five. The highest number of participants were reached during August 2024 (n = 230,875; **Figure 9**). The number of participants reached monthly was lower in year five than in year four (n = 234,571 in year four), likely due to the greater number of NI projects that submitted site-level data in year four (n = 70) compared to year five (n = 54). See **Table A1** for the estimated number of NI participants reached each month by award mechanism.



<sup>\*</sup>The green bar indicates the highest reach

### How Did NI Participants Redeem Incentives?

NI participants received incentives after the purchase of project-eligible food products. Incentives were then redeemed for eligible FVs at participating sites (see **Appendix 7** for definitions and examples of products designated eligible for receiving and redeeming incentives). Among B&M sites (n = 1,416), the most common models to earn incentives were from fresh FVs (36.2%), any SNAP-eligible product (34.0%), and all FVs (i.e., fresh, canned, frozen, dried, plants, and/or seeds) purchases (22.3%; **Table A2**).

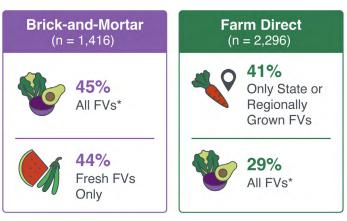
Among FD sites (n = 2,296), participants earned incentives from any SNAP-eligible product (80.5%), fresh FVs (11.4%), and state or regionally grown FV purchases (5.6%; **Table A2**). It is not surprising that FD sites allowed incentives to be redeemed for any SNAP-eligible product. Items available at these sites tended to include FVs and other locally produced items and transactions at FD sites were generally manual and not tied to a point-of-sale system.



GusNIP NI projects offer participants the opportunity to redeem incentives for dried, fresh, frozen, and/ or canned FVs without added sugars, fats, oils, or salt. Grantees can further limit redemption eligibility, such as incentive redemption limited to local or regional FVs (**Appendix 7**). Among B&M sites (n = 1,416), the most common items eligible for incentive redemption were all FVs (i.e., fresh, canned, frozen, dried, plants, and/or seeds; 45.2%), followed closely by fresh FVs (44.1%; **Figure 10**; **Table A3**). Among FD sites (n = 2,296), the most common items eligible for incentive redemption were state or regionally grown FVs (41.1%), followed by all FVs (i.e., fresh, canned, frozen, dried, plants, and/or seeds; 28.8%), and fresh FVs (23.5%; **Figure 10**; **Table A3**).

The methods used to distribute and redeem incentives varied among GusNIP projects. See **Appendix 7** for definitions and examples of incentive distribution and redemption methods. Across NI projects (n = 3,712 sites), paper vouchers or coupons remained the most common method for incentive distribution and redemption (43.1%), followed by token (23.3%), store loyalty account (18.0%), and automatic discount at register (14.9%; **Table A4**). Some NI projects reported other methods for incentive distribution and redemption, such as a CSA share or produce box (1.8%) or participants' existing SNAP EBT card (1.8%; **Table A4**).

**Figure 10.** Foods Most Commonly Eligible for Incentive Redemption among NI Projects by Site Type (2023-2024; n = 3,712)\*



\*3,712 sites reported the methods used and the type of foods eligible for incentive redemption. This is fewer sites than reported because some sites did not provide data on incentive methods or eligible foods.

FD sites used tokens as a way for participants to redeem incentives more often than B&M sites (37.5% vs. 0.3%). 13 Conversely, loyalty accounts were used more often at B&M compared to FD sites (42.2% vs. 3.1%). Differences in the financial instrument used to distribute and redeem incentives by site type are reported in **Table A4** and summarized in **Figure 11**. The high prevalence of paper vouchers or coupons, tokens, and loyalty accounts for incentive distribution likely reflects the relative ease of using these distribution methods among sites and the acceptability of these distribution methods among NI participants.

**Figure 11.** Most Common Incentive Distribution/ Redemption Methods Used in NI Projects by Site Type (2023-2024; n = 3,712)\*

Top 2 Brick-and-Mortar Incentive Methods (n = 1,416)

Top 2 Farm Direct Incentive Methods (n = 2,296)



**42%**Loyalty Account



46%
Paper Voucher or Coupon



39% Paper Voucher or Coupon



38% Token

\*3,712 sites reported the methods used and the type of foods eligible for incentive redemption. This is fewer sites than reported elsewhere in the report because some sites didn't provide data on incentive methods or eligible foods.

Understanding project characteristics, such as methods for incentive distribution and redemption, is critical for maximizing GusNIP effectiveness. This information not only helps guide implementation strategies for ongoing and future NI projects but also drives research on which strategies work best under what conditions. For instance, NTAE researchers analyzed data from previous grant years and found that B&M sites that utilized automatic discounts at the register had 3.5 times more incentives redeemed compared to physical incentives, such as coupons and loyalty cards. However, it is important to note that shoppers who benefit from these automatic discounts may not be fully aware of the program itself.

As a result, some consumers might not consciously recognize the changes in their purchasing behaviors. These types of research findings provide a more precise understanding of which project characteristics and models are most effective and thereafter inform project implementation.



<sup>&</sup>lt;sup>13</sup> Tokens were most often used at FD sites because FD sites tend to use central EBT terminals where tokens are dispersed.

<sup>&</sup>lt;sup>14</sup> Parks CA, Mitchell E, Shanks CB, et al. Which program implementation factors lead to more fruit and vegetable purchases? An exploratory analysis of nutrition incentive programs across the United States. Curr Dev Nutr. 2023;7(12):102040. <a href="https://cdn.nutrition.org/article/S2475-2991(23)26624-X/fulltext">https://cdn.nutrition.org/article/S2475-2991(23)26624-X/fulltext</a>

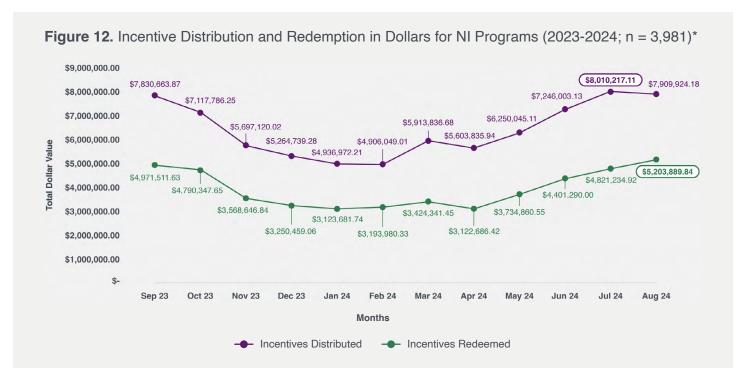
### How Many NI Incentive Dollars Were Issued and Redeemed?

In year five, \$76,687,193 of incentives were distributed to NI project participants (Table A5) in 45 states and one U.S. territory. Of that total, \$47,606,930 were redeemed across 3,981 NI sites. An average of \$11,700 in incentives were redeemed per site (Table A5). This equates to a 62.1 percent total annual redemption rate (**Table A5**) in Y5, which falls within the range of redemption rates in previous years (range = Y3 at 61.0% to Y1 at 80.3%). Incentives may not be redeemed by participants for a variety of reasons. Participants may not spend the full dollar amount of incentives earned on FVs, misplace incentives, lack awareness that incentives were received, or lack transportation to use incentives at participating sites.

Unused incentives (i.e., incentives not redeemed) are typically reallocated and made available to other participants. Many projects will assign an expiration date for the incentive to more seamlessly facilitate recirculation of unused incentives.

Incentives distribution was lowest in February 2024 (\$4,906,049) and highest in July 2024 (\$8,010,217). Incentives redemption was lowest in April 2024 (\$3,122,686) and highest in August 2024 (\$5,203,890; Figure 12). The summertime peak for incentive distribution and redemption is expected given that NI projects include 58.5 percent FD sites, which operate seasonally to align with growing and harvesting seasons.





<sup>\*3,981</sup> sites reported incentive distribution and/or redemption data to the NTAE. The number of participating sites represents a monthly total, not a cumulative count of sites across the reporting year.

### What Other Services Did NI Sites Offer?

Beyond FV incentives, many NI sites offered nutrition education, support services, marketing activities, and other complimentary services (see **Appendix 7** for definitions and examples). NTAE researchers have found that providing complementary services in combination with incentives positively influenced incentive redemption. It is important to further examine complementary services to help researchers, practitioners, and policymakers support project models that lead to improved outcomes for participants, projects, and communities.

**Tables A6**, **A7**, and **A8** summarize the nutrition activities, support services, and marketing activities offered at NI sites. **Figure 13** summarizes the nutrition education, support services, and marketing activities most offered at FD and B&M sites.<sup>15</sup>

**Figure 13.** Most Common Nutrition Education, Support Services, and Marketing Activities Among NI Sites that Provided These Offerings (2023-2024)

	Nutrition Education	Support Services	Marketing Activities
Brick-and-Mortar	93% Cooking Demonstrations	64% Produce Delivery	95% On-Site Signage or Announcements
Farm Direct	89% Cooking Demonstrations	67% Resource Referrals	77% On-Site Signage or Announcements

<sup>&</sup>lt;sup>15</sup> Percentages displayed are out of sites that offered any nutrition education, support services, or marketing activities respectively. Percentages do not add up to 100 percent as some NI sites offer multiple services.



### Overall, in year five:

- 1,690 NI sites offered nutrition education to augment incentive programs and increase nutrition knowledge to support behavior change among NI participants (<u>Table A6</u>). The most common nutrition education activities included cooking demonstrations (89.9%), nutrition education by partner agencies (e.g., SNAP-Ed, EFNEP, or WIC; 30.9%), and food navigation or tours (20.2%; <u>Table A6</u>). The most common type of nutrition education provided at both FD and B&M sites was cooking demonstrations (<u>Figure 13</u>).
- 2 1,060 NI sites offered support services to address common barriers to access (<u>Table A7</u>). Resource referrals (50.2%) were the most common support service, followed by shopping assistance (35.5%), and produce delivery (27.8%; <u>Table A7</u>). FD and B&M sites differed in the most common type of support service offered. B&M sites most often offered produce delivery (64.1%) and shopping assistance (55.1%). FD sites most often offered resource referrals (67.3%; <u>Figure 13</u>).
- 3 3,337 NI sites used marketing activities to increase awareness of and participation in the project (<u>Table A8</u>). The most common marketing activities were on-site signage or announcements (83.0%), direct promotions distributed by direct mail, email, or phone (66.5%), and online advertisements (57.2%; <u>Table A8</u>). The most common marketing activity at both FD and B&M sites was using on-site signage or announcements (<u>Figure 13</u>).



# **GusNIP NI Participants: Impacts on Households, Nutrition, and Health**

NI grantees with active projects<sup>16</sup> collected participant-level data in year five. NI participant results in this report include data collected during year five only. Reporting on participantlevel outcomes for NI projects is essential for understanding the impact of incentive initiatives on individuals and households. By tracking changes in FV intake, food security status, and health outcomes by program exposure, researchers and program administrators can determine whether NI programs are having the intended impact on participants. These data help identify trends across different populations, ensuring that programs reach the populations they intend to serve. Participantlevel data is a key component to determining the effectiveness of these programs and refining strategies to maximize their reach and impact.

"

"I was able to stabilize my diabetes thanks to the program. It gave me the tools and knowledge I needed to manage my health better. Now, I'm able to cook healthy meals for my kids, and we all feel so much better. Some of my friends have even started asking me questions about what to cook and eat to help manage their own health. I've become an advocate in my community, sharing what I've learned to help others improve their well-being too. The program truly changed our lives for the better!"

-Western Region NI Participant

# What Were the Characteristics of NI Program Participants?

NI grantees collected surveys from 9,778 participants.<sup>17</sup> The sample size collected across the 54 active NI projects ranged from as few as four to as many as 912 participants, with an average of 181 surveys collected per active NI project.<sup>18</sup> Resulting participant-level data represented all four regions of the U.S. as defined by the U.S. Department of Agriculture (USDA), National Institute of Food and Agriculture (NIFA), with the greatest number of surveys collected in the Western region (34.0%; **Table 3**).<sup>19</sup>

**Table 3.** Number of NI Surveys Collected Across U.S. Regions (Defined by USDA NIFA)

Region	N (%)
Western	3,327 (34.0%)
Southern	2,417 (24.7%)
North Central	2,074 (21.2%)
Northeast	1,960 (20.0%)
Total	9,778

<sup>&</sup>lt;sup>16</sup> All NI grantees with active projects, except GusNIP Pilot Projects, are expected to collect participant-level surveys each year.

<sup>&</sup>lt;sup>17</sup> NI surveys are collected annually by grantees using a repeated cross-sectional design. This means the same individuals are not followed over time, rather a convenience sample is collected annually.

<sup>&</sup>lt;sup>18</sup> The wide range in number of surveys collected reflects varying evaluation capacity among funded organizations and the timing of reporting deadlines in relation to when a project began administering surveys.

<sup>&</sup>lt;sup>19</sup> Distribution of surveys across geographic regions is influenced by the number of active NI projects in each region and by projects providing different sample sizes based on their award type and capacity.

### GusNIP Nutrition Incentive (NI) Projects

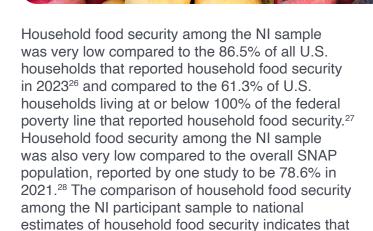
Participant-level data reflected in **Table A9** display the sociodemographic characteristics of NI participants surveyed during year five. Most NI participants identified as female (76.1%), White (47.0%) or Black or African American (22.0%), and non-Hispanic/Latino (74.5%), with an average age of 47 years. Compared to the overall U.S. population (50.5% female), the NI sample included a greater proportion of females (76.1%).20 Additionally, the NI sample included a greater proportion of individuals of color (38.9%) than the U.S. population.<sup>21</sup> NI sample characteristics were similar to the overall SNAP population, which is GusNIP's intended population. National data on the characteristics of shoppers using SNAP in 2020 revealed that the overall SNAP population was 37.9% White, 25.5% Black or African American, 15.1% Hispanic/Latino, and between 36 and 59 years old (22.9%).22

# How Did We Analyze the Impact of NI Participation?

When analyzing the impact of NI project participation, it is important to ensure all projects and participants have equivalent representation. Since the sample size varied greatly among NI projects, a method called weighting was applied when analyzing key participant-level outcomes, including FV intake, food security, perceived health, and program satisfaction. Specifically, outcome data were down weighted for projects that collected more than the expected number of participant surveys.<sup>23</sup> Without weighting, one or a few projects with very large sample sizes could have biased the results.

# How Did NI Projects Impact Household Food Security?

Household food security, which NI projects intend to support, improved after participating in an NI project. Household food security was assessed using the U.S. Household Food Security Survey Module: Six-Item Short Form.<sup>24,25</sup> Of the 5,269 NI survey participants who completed the household food security questions, 2,208 (41.9%) participants were found to be food secure and 3,061 (58.1%) were food insecure (**Table A10**).



NI projects reached households in need of

food assistance.

- <sup>23</sup> Down weighting results means that we applied a value to outcomes that is the expected number of surveys for a grantee divided by the actual number of surveys received. Note that for weighted outcomes cell counts may not be whole numbers, and these have been rounded to whole numbers for ease of interpretation.
- <sup>24</sup> Food Security in the U.S. Survey Tools | Economic Research Service. Accessed February 19, 2025. <a href="https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools#six">https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools#six</a>.
- <sup>25</sup> Household food security includes participants reporting high household food security or marginal food security. Household food insecurity includes participants reporting low household food security or very low household food security.
- <sup>26</sup> Rabbitt MP, Reed-Jones M, Hales LJ, Burke, MP. *Household food security in the United States in 2023*, ERR-337, U.S. Department of Agriculture, Economic Research Service; 2024. <a href="https://www.ers.usda.gov/publications/pub-details?pubid=109895">https://www.ers.usda.gov/publications/pub-details?pubid=109895</a>.
- <sup>27</sup> United States Department of Agriculture, Economic Research Service. *Key Statistics & Graphics*. Accessed February 19, 2025. <a href="https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/#householdtype">https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/#householdtype</a>.
- <sup>28</sup> Brady PJ, Harnack L, Widome R, Berry KM, Valluri S. *Food security among SNAP participants 2019 to 2021: a cross-sectional analysis of current population survey food security supplement data.* J Nutr Sci. 2023;12:e45. Published 2023 Apr 11. https://doi.org/10.1017/jns.2023.32.

<sup>&</sup>lt;sup>20</sup> American Community Survey 2023 vintage five-year estimates.

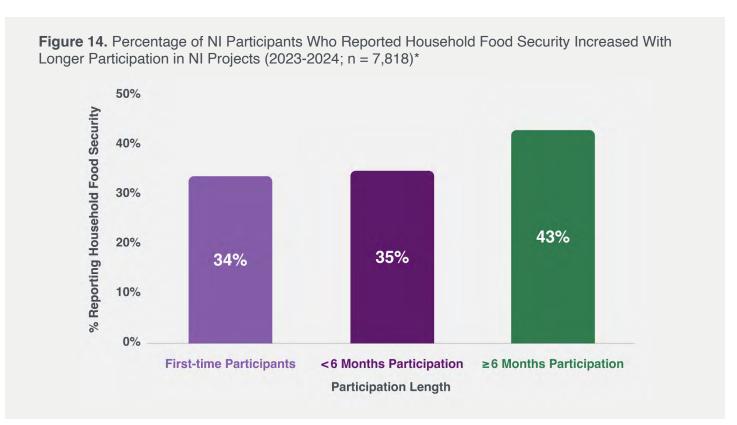
<sup>&</sup>lt;sup>21</sup> 36.6% of the U.S. population is non-white according to the American Community Survey 2023 vintage five-year estimates.

<sup>&</sup>lt;sup>22</sup> Cronquist K, Eiffes B. Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2020. U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support; 2022.

When food security levels were examined by dose<sup>29</sup> (<u>Figure 14</u>), individuals with longer participation in the NI project (six months or more) were more likely to report household food security (43.0%) when compared to those with less than six months of participation (34.8%) and first-time participants (33.7%).

In the year five NI sample, there were several sociodemographic groups that reported lower household food security than the average NI program rate of food security (41.9%; **Table A10**). Individuals aged 45 to 64 reported lower household food security (37.1%) when compared to other age groups. In addition, NI participants who identified as Hispanic/Latino reported lower household food security (36.5%) compared to participants who identified as non-Hispanic/Latino and those who preferred not to answer when asked about their ethnicity (**Table A10**). Those who identified as Native Hawaiian had the lowest reported household food security (22.5%) when compared to other racial categories, including participants who identified as multi-racial or another race not listed (Table A10).

Table A10 details the distribution of household food security rates across all sociodemographic characteristics. National food insecurity data also showed differences in ethnic and racial categories. Hispanic/Latino and Black or African American households were less likely to be food secure than White, non-Hispanic/Latino households across the United States.<sup>27</sup> In general, sociodemographic characteristics of the NI participant sample resemble national sociodemographic characteristics among people experiencing household food insecurity.



<sup>\*</sup>Percentages reported are compared against food insecure households within the same participation length category.

<sup>&</sup>lt;sup>29</sup> Length of participation in NI is used as a proxy to measure dose and assesses whether participants are using an NI program for the first time, and if not, how long they have used the program.

# How Did NI Projects Impact Fruit and Vegetable Intake?

Another goal of NI projects is to increase participant FV intake through increased FV purchases. Achieving adequate FV intake can be challenging for households living below the federal poverty line, especially due to the increasing cost of purchasing FVs.<sup>30</sup> FV intake for all NI survey respondents was calculated using the 10-item Dietary Screener Questionnaire (DSQ; described in **Appendix 3**).

On average, NI participants reported a greater intake of vegetables (1.59 cups/day) versus fruit (1.07 cups/day) for a total of 2.65 FVs cups/day (Table A11). As in year four,31 these values were greater than the average reported intake levels for FVs among U.S. adults (vegetables = 1.55 cups/day; fruit = 0.88 cups/day).32 The year five NI participant FV intake values were also greater than the average reported intake levels for FVs among the U.S. population with low income (2.12 FVs cups/day).32 For context, the 2020-2025 U.S. Dietary Guidelines for Americans (DGA) recommends that adults eat 2 to 3 cups of vegetables and 1.5 to 2 cups of fruits each day for a total of 3.5 to 5 cups of FVs per day.33 When compared to both the national population and individuals with low income, NI participants have higher levels of FV intake. However, all groups fall below the recommended daily intake.

Male participants reported a greater FV intake (2.92 FVs cup/day) than female participants (2.59 FV cups/day). Participants who identified as more than one race reported the highest FV intake across racial and ethnic groups (2.76 FV cups/day), while participants who identified as other Pacific Islander reported the lowest (2.56 FV cups/day). Participants aged 18 to 24 reported the lowest FV intake among all groups (2.45 FV cups/day). Western region participants reported the greatest intake of FVs (2.73 FV cups/day) compared to other regions (range = 2.56 - 2.69 FV cups/day; **Table A11**).

NI participants who shopped at FD sites reported higher amounts of FV intake (2.75 FV cups/day) when compared to B&M sites (2.64 FV cups/day). These data are consistent with year four findings and align with previous research that demonstrates slightly higher FV intake from participants associated with FD sites when compared to B&M sites.<sup>34, 35, 36</sup>



- <sup>30</sup> United States Government Accountability Office. *Food Prices: Information on Trends, Factors, and Federal Roles.* Published March 28, 2023. Accessed January 25, 2025. <a href="https://www.gao.gov/products/gao-23-105846">https://www.gao.gov/products/gao-23-105846</a>.
- <sup>31</sup> Y4 vegetable intake = 1.64 cups/day, Y4 fruit intake = 1.10 cups/day
- <sup>32</sup> U.S. Department of Agriculture, Economic Research Service. Food Consumption, Nutrient Intakes, and Diet Quality. Updated February 25, 2025. Accessed February 28, 2025. <a href="https://www.ers.usda.gov/data-products/food-consumption-nutrient-intakes-and-diet-quality">https://www.ers.usda.gov/data-products/food-consumption-nutrient-intakes-and-diet-quality</a>.

FVI in cups/day estimates for U.S. adults were calculated using FVI in cups/day for females, age 20+ and males, age 20+ cohorts and applying sample size proportions.

- <sup>33</sup> United States Department of Agriculture and United States Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025.* 9th Edition. Published December 2020. Accessed February 2, 2025. **DietaryGuidelines.gov**.
- <sup>34</sup> Jilcott Pitts SB, Gustafson A, Wu Q, et al. *Farmers' market use is associated with fruit and vegetable consumption in diverse southern rural communities*. Nutr J. 2014;13,1. <a href="https://doi.org/10.1186/1475-2891-13-1">https://doi.org/10.1186/1475-2891-13-1</a>.
- <sup>35</sup> Hu X, Clarke LW, Zendehdel K. *Farmers' market usage, fruit and vegetable consumption, meals at home and health–evidence from Washington, DC.* Sustainability. 2021;13(13):7437. <a href="https://doi.org/10.3390/su13137437">https://doi.org/10.3390/su13137437</a>.
- <sup>36</sup> Taylor DE, Lusuegro A, Loong V, et al. *Racial, gender, and age dynamics in Michigan's urban and rural farmers markets: Reducing food insecurity, and the impacts of a pandemic.* Am Behav Sci. 2022;66(7):894-936. <a href="https://doi.org/10.1177/00027642211013387">https://doi.org/10.1177/00027642211013387</a>.

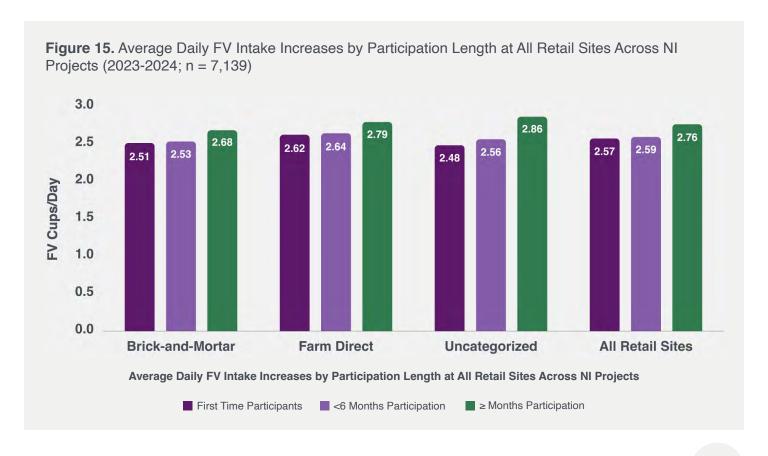


Across all retail sites, NI participants who reported redeeming incentives for six months or more reported higher FV intake (2.76 FV cups/day) than those who reported redeeming incentives for less than six months (2.59 FV cups/day) or redeeming incentives for the first time (2.57 FV cups/day). As with years two to four, the GusNIP year five results demonstrate a higher FV intake among those utilizing the program for six months or more when compared to first-time participants (+0.19 FVs cups/day at all retail sites).

These FV intake results are particularly meaningful given that prior research demonstrated a dose-response relationship between FV intake and health, where incremental increases in FV intake are health protective.<sup>37</sup>

In other words, even moderate increases in FV intake can result in better health. As the GusNIP program continues to grow, it is encouraging to see the continued association between NI participation and increased FV intake. Additionally, the DSQ assesses impact on only an individual's FV intake, but the impact on FV intake could extend to the whole household. **Figure 15** displays differences in FV intake by site type and length of participation.

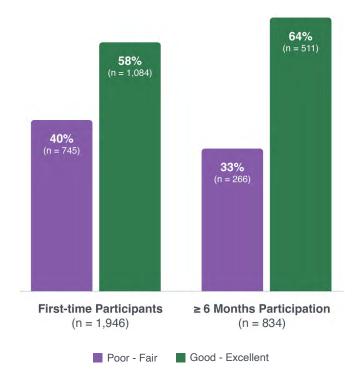
<sup>&</sup>lt;sup>37</sup> Bellavia A, Larsson SC, Bottai M, et al. *Fruit and vegetable consumption and all-cause mortality: A dose-response analysis.* Am J Clin Nutr. 2013;98(2):454-9. <a href="https://doi.org/10.3945/ajcn.112.056119">https://doi.org/10.3945/ajcn.112.056119</a>.



# How Did NI Projects Impact Perceived Health?

Previous research established that FV intake is associated with improved health outcomes.38,39 In other words, as FV intake increases, instances of death and disease decrease. Therefore, NI participants (n = 5,664) were asked to self-report on their health as either poor, fair, good, very good, or excellent.40 NI participants were most likely to perceive their health as good (37.8%), followed by fair (31.0%) and very good (16.3%; **Table A12**). Individuals who participated in NI projects for six months or more reported good, very good, or excellent health more often (64.1%) than first-time participants (58.3%; Figure 16). These results are consistent with Y2-Y4 and continue to indicate that longer-term participation in NI projects is associated with improved perceived health among participants.

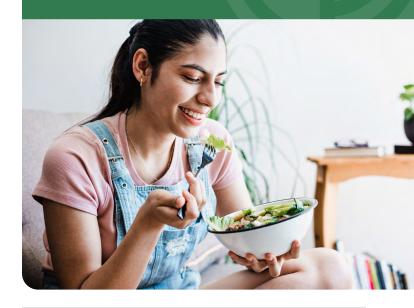
**Figure 16.** Perceived Health Improves With Longer Participation Across NI Projects (2023-2024; n = 5.664)



NOTE: This figure does not include the following categories: don't know/prefer not to answer and missing

"I had a longtime customer (since I've been here) share that she has seen positive change in her A1c since shopping with the [NI project]. Recently she reported her A1c dropped from above 7 to a 5.7! She said that the extra fruits and vegetables really helps her during the summer and then she tries to match that variety during the off season."

-North Central Region NI Farmers Market Operator

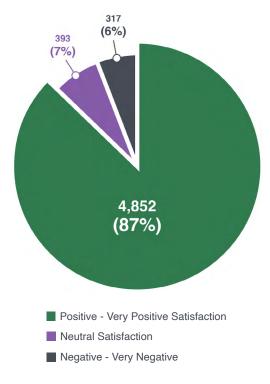


- <sup>38</sup> Wallace TC, Bailey RL, Blumberg JB, et al. *Fruits, vegetables, and health: A comprehensive narrative, umbrella review of the science and recommendations for enhanced public policy to improve intake.* Crit Rev Food Sci Nutr. 2020;60(13):2174-211. <a href="https://doi.org/10.1080/10408398.2019.1632258">https://doi.org/10.1080/10408398.2019.1632258</a>.
- <sup>39</sup> Wang DD, Li Y, Bhupathiraju SN, et al. *Fruit and vegetable intake and mortality: Results from 2 prospective cohort studies of US males and females and a meta-analysis of 26 cohort studies.* Circulation. 2021;143(17):1642-1654. <a href="https://doi.org/10.1161/circulationaha.120.048996">https://doi.org/10.1161/circulationaha.120.048996</a>.
- <sup>40</sup> Self-reported health was measured using a single-item tool developed by the Centers for Disease Control and Prevention. Citation: Centers for Disease Control and Prevention. *Measuring healthy days: Population assessment of health-related quality of life*. Atlanta Georgia CDC. 2000. <a href="https://stacks.cdc.gov/view/cdc/6406">https://stacks.cdc.gov/view/cdc/6406</a>.

# How Satisfied Were Participants With NI Projects?

Among NI participants who reported program satisfaction (n = 5,664), 87.2 percent felt positively or very positively about the NI project (Figure 17). This high satisfaction rate among NI participants has remained around 88 percent for three years after it increased 11 percentage points between year two and year three. Program satisfaction was slightly higher among FD participants, with 93.2 percent reporting they felt positively or very positively about the NI project they participated in, compared to 82.9 percent of B&M participants (Table A13). This difference may be due to site characteristics rather than the NI project itself. In other words, FD sites may have different features compared to B&M sites that contributed to positive feelings and program satisfaction, such as family activities, community events, and vendors selling non-food items. A small proportion (0.72%) of NI participants reported very negative experiences with NI projects (Table A13). These responses indicate NI projects are very well perceived overall.

**Figure 17.** Program Satisfaction Among NI Project Participants (2023-2024; n = 5,664)\*



<sup>\*</sup>Figure excludes missing responses.





# **GusNIP Produce Prescription (PPR) Projects**

Data gathered by the Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center (NTAE) also demonstrated that produce prescriptions improved fruit and vegetable (FV) intake, household food security, and perceived health. In addition, pilot data demonstrated improvements among select clinical outcomes.

Healthcare professionals at clinics provided PPR participants with an incentive, commonly referred to as a produce prescription. The produce prescription could be exchanged for free or reduced cost FVs at farm direct (FD), brick-and-mortar (B&M), and clinic sites. Produce prescriptions are intended to help treat or prevent diet-related chronic disease and were based on specific eligibility criteria (e.g., having a chronic disease, such as type 2 diabetes). PPR projects are designed to improve participants' health outcomes by increasing FV intake, supporting food security, and improving healthcare utilization (e.g., reduced emergency department visits and hospitalizations).

All PPR grants awarded between 2019-2023 and active during GusNIP year five (Y5; September 1, 2023 to August 31, 2024) collected and shared core measures data with the NTAE. Core measures provide information related to the sites where PPR projects operated as well as the impact of those projects on participant outcomes. With this information, the NTAE tracked reach to various regions, communities, and individuals; quantified the dollar amount of produce prescriptions distributed and redeemed; and explored how sites implemented PPR projects.

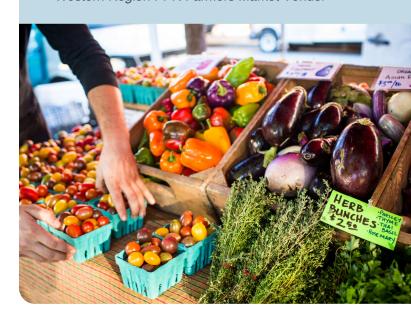
# GusNIP at PPR Sites: Operation and Reach

Grantees submitted site-level data for 94 PPR awards via the Nutrition Incentive Hub secure web portal. Site-level data provide context for how PPR projects were implemented across the United States. Researchers and practitioners use site-specific results to assess variations in project reach, project components, and effectiveness across different geographic, economic, and demographic settings. These insights help identify best practices, challenges, and other factors that influence continued program success.

Additionally, site-level data enable PPR projects to tailor interventions to meet the unique needs of participants and ensure ongoing impact. Evaluating site-level findings strengthens the overall impact of PPR initiatives by facilitating data-driven decision-making and continuous improvements in project impact and efficiency. See <u>Appendix 4</u> for descriptions of methods and measures used for site-level reporting. See <u>Appendix 9</u> for all PPR site-level results tables.

"In this second year of our collaboration,
Produce Rx sales at the...Farmers Market
have grown substantially. Farmers Market
staff frequently brag to visitors and even the
County Inspector about how proud they are
to be part of a program that is connecting
local farmers and their produce directly to
the healthcare services of people living
with diabetes!"

-Western Region PPR Farmers Market Vendor

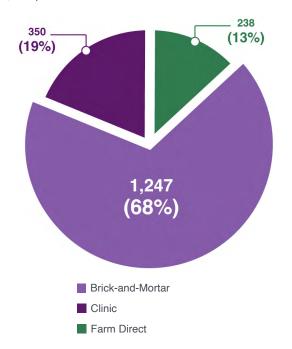




### Where Did PPR Projects Operate?

In year five, GusNIP PPR projects expanded access to FVs via produce prescriptions across 1,835 FD. B&M, and clinic sites (Figure 18). Most PPR sites (83.1%) were located in urban areas, while 17.0 percent were in rural areas. Less than 1 percent of PPR sites were in areas serving tribal populations (Table 4). It is important to note that sites in urban geographies may serve rural or tribal communities. so location alone does not describe the full reach of PPR sites. Participants most often screened and enrolled at clinic sites where produce prescriptions were distributed. Participants most often redeemed produce prescriptions at B&M or FD sites. Following year-over-year increases, year five data showed another rise in the number of PPR sites. Specifically, there was a 29 percent increase in the number of PPR sites from year four to year five. The increased number of PPR sites provided additional locations where participants could enroll in projects and redeem produce prescriptions.

**Figure 18.** PPR Project Site Types (2023-2024; n = 1,835)



**Table 4.** Geographies Where PPR Sites Were Located (2023-2024; n = 1,822\*)

Location	N (%)
Rural	307 (16.9%)
Rural and Tribal	1 (0.1%)
Urban	1,512 (83.0%)
Urban and Tribal	2 (0.1%)
Total	1,882

<sup>\*</sup>The number of PPR sites in Table 4 (1,822) is less than the number of PPR sites in Figure 18 (n = 1,835) because multiple sites may operate in the same location if multiple projects use the same site location to distribute or redeem incentives.

### How Many People Did PPR Projects Reach?

Reach is defined as the number of participants enrolled in a PPR project within a given timeframe. Tracking the unique number of participants served is crucial. Reach indicates the scale and effectiveness of PPR projects in improving FV access. Additionally, tracking participation trends over time can highlight changes in demand for PPR projects. Reach data can also provide timely opportunities to quickly address emerging challenges to project engagement. Finally, tracking the reach of PPR projects provides numbers that powerfully demonstrate PPR projects' contributions to families' food security and public health.

To measure reach, PPR sites were asked to report the number of newly enrolled participants each month (see "Who Was Eligible to Participate in PPR?" for details about enrollment). During year five, 21,648 PPR participants were enrolled. The number of participants reached was lower in year five than in year four (n = 22,571). This slight decrease from year four to year five was due to the greater number of PPR projects active in year four (n = 114) compared to year five (n = 101).

### How Did PPR Participants Redeem Produce Prescriptions?

Those PPR participants who met income- and healthrelated eligibility criteria (e.g., eligible for SNAP or participating in Medicaid) were prescribed FVs by healthcare professionals. Participants could then exchange produce prescriptions for free or reduced cost FVs, often at B&M or FD sites.

Produce prescriptions were distributed using a variety of methods, including loyalty cards, tokens, vouchers, and community supported agriculture (CSA) boxes (see **Appendix 7** for definitions and examples). The most common method for prescription distribution across PPR sites was paper voucher or coupon (43.0%), followed by benefit/debit card (19.71%), token (19.4%), and CSA share or produce box (19.0%; **Table B1**). A smaller proportion of PPR projects reported other methods of distribution, such as a loyalty account (7.9%; **Table B1**).

There were also differences in distribution methods among PPR site types (**Figure 19**). Clinics were the most likely site type to distribute produce prescriptions. The most common distribution method at clinics was paper vouchers or coupons (55.2%). B&M sites were the least likely site type to distribute produce prescriptions. When B&M sites did distribute produce prescriptions, they most commonly did so in the form of CSA shares or produce boxes (47.1%). This likely indicates that the 17 B&M sites served as CSA pick up locations. FD sites most often distributed produce prescriptions in the form of tokens (60.0%), followed by CSA shares or produce boxes (34.0%; **Figure 19**).

As specified in the PPR Request for Applications, only fresh FVs were automatically eligible for redemption within PPR projects. However, grantees were able to seek an exemption from USDA NIFA to allow prescription redemption for non-fresh FVs (e.g., canned, frozen, dried). Such exemptions were granted to accommodate cultural preference. seasonality, and/or accessibility of fresh FVs in a project's geographic area.41 Grantees could further decide what type of FVs were eligible for redemption within their project. For example, a grantee might have adjusted eligibility criteria to prioritize regionally or locally grown FVs. Eligibility requirements, exemptions, and modifications resulted in a wide variety of FV types eligible for prescription redemption across PPR sites. For example, most PPR sites specified only fresh FVs (75.2%) as eligible for prescription redemption. A smaller number of sites broadened eligibility to include all FVs (i.e., fresh, canned, frozen, dried, plants, and/or seeds; 14.8%). Another group of sites focused eligibility on state or regionally grown FVs (6.7%; Table B2). The ability for projects to modify FV eligibility allows for customization of operations to reliably and efficiently provide FVs that best meet participants' needs.

**Figure 19.** Most Common Prescription Distribution Methods Used Across PPR Projects by Site Type (2023-2024; n = 279)



<sup>&</sup>lt;sup>41</sup> United States Department of Agriculture, National Institute of Food and Agriculture. *Request for Applications: The Gus Schumacher Nutrition Incentive Program Produce Prescription Program (Fiscal Year 2024)*. Accessed February 3, 2025. <a href="https://www.nifa.usda.gov/grants/funding-opportunities/gus-schumacher-nutrition-incentive-program-produce-prescription.">https://www.nifa.usda.gov/grants/funding-opportunities/gus-schumacher-nutrition-incentive-program-produce-prescription.</a>

### GusNIP Produce Prescription (PPR) Projects

Figure 20 shows the most common FV types that were eligible for prescription redemption among the three types of PPR sites in year five. All three site types most commonly specified only fresh FVs as eligible for prescription redemption (B&M 80.7%; clinic 69.2%; FD 50.9%). However, a relatively large percentage of FD sites (30.9%) focused eligibility on state or regionally grown FVs, compared to clinic (15.4%) and B&M sites (1.1%; Table B2; Figure 20). FD sites (e.g., farmers markets) often sell a higher proportion of local FVs than B&M or clinic sites. Therefore, FD sites may be better suited and more likely to focus eligibility on state or regionally grown FVs.

PPR projects used a wide range of methods to distribute and redeem produce prescriptions for FVs. Therefore, the PPR portfolio offered a unique opportunity to investigate how distribution and redemption methods impacted health in local communities. For example, were health outcomes better among participants in programs that distributed produce prescriptions via CSA boxes versus those that used loyalty accounts? NTAE researchers actively leveraged data from PPR projects to identify how project design choices are associated with participant engagement and outcomes. See "New Developments in PPR **Evaluation**" to learn more about this and other examples of how PPR projects are answering key questions of interest to PPR practitioners, policymakers, and researchers.

**Figure 20.** Most Common Fruits and Vegetables Eligible for Prescription Redemption Across PPR Projects by Site Type  $(2023-2024; n = 1,215)^*$ 

Brick-and-Mortar	Farm Direct	<b>Clinic</b>
(n = 983)	(n = 219)	(n = 13)
81%	51%	69%
Fresh FVs	Fresh FVs	Fresh FVs
Only	Only	Only
16% All FVs*	31% Only State or Regionally Grown FVs	15% Only State or Regionally Grown FVs

<sup>\*</sup>All FVs includes fresh, canned, frozen, dried, plants, and/or seeds.

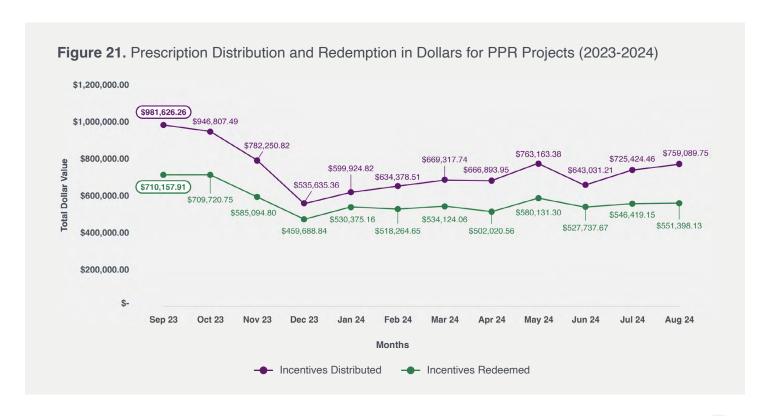




### How Many Produce Prescription Dollars Were Distributed and Redeemed?

In year five, \$8,707,544 in produce prescriptions were distributed to PPR participants. Across 1,835 FD, B&M, and clinic PPR redemption sites, \$6,755,133 worth of produce prescriptions were redeemed. An average of \$4,077 in produce prescriptions were redeemed per site per month. This represented a 77.6 percent total annual redemption rate for Y5 (**Table B3**), a 3.0 percent increase from year four. Likewise, there were over \$2.6 million more produce prescriptions redeemed in year five compared to year four. The increased redemption rates and dollars redeemed in year five could reflect the increased number of PPR sites operating in year five relative to year four as well as the increased efficiency of PPR projects.

Among all PPR projects, both prescription distribution (\$535,635) and prescription redemption (\$459,689) were lowest in December 2023 (Figure 21). Both prescription distribution (\$981,626) and redemption (\$710,158) were highest in September 2023 (Figure 21). Produce prescription distribution and redemption may peak in summer and early fall months because several PPR projects take advantage of increased fresh produce available during harvesting seasons at FD outlets, like farmers markets and CSA programs. Identifying and understanding seasonal variations in prescription distribution and redemption could reveal trends over time and allow PPR practitioners to plan for surges in enrollment and/or optimize marketing to potential participants.



### What Other Services Did PPR Sites Offer?

In addition to produce prescriptions, many PPR projects offered nutrition education resources, support services, and/or marketing activities (see <u>Appendix 7</u> for definitions and examples). NTAE researchers have found that offering complementary services in combination with nutrition incentive (NI) projects positively influenced incentive redemption. Given these findings, NTAE researchers are currently conducting similar studies with PPR projects. Continued examination of complementary services will help practitioners, policymakers, and researchers support project models that lead to improved health outcomes and economic impact.

<u>Tables B4</u>, <u>B5</u>, and <u>B6</u> summarize the nutrition activities, support services, and marketing activities offered at PPR sites. <u>Figure 22</u> summarizes the nutrition education, support services, and marketing activities most commonly offered at B&M, FD, and clinic sites.<sup>42</sup>

# "Local community members come weekly to receive their [produce prescriptions] as a way to save on their grocery spending. Many of our senior clients disclose that they try to shop smart by limiting the money they spend on produce because they can buy some with [produce prescriptions] at the local farm stand. This program is impactful in many ways and allows for low-income community members to be able to save their cash and use the benefits provided." —Northeast Region PPR Grantee

### Overall, in year five:

- 425 PPR project sites offered one or more nutrition education activities to augment PPR projects and increase nutrition knowledge to support behavior change among PPR participants (**Table B4**). Nutrition education in PPR projects often focused on building participants' capacity to purchase, prepare, and eat FVs. Cooking demonstrations were overwhelmingly the most common nutrition education activity offered at PPR sites (88.0%; Table B4; Figure 22). Other nutrition education activities included one-on-one or small group nutrition education (37.8%). virtual or electronic nutrition education (29.1%), nutrition education by partner agencies (e.g., SNAP-Ed, EFNEP, or WIC; 27.2%), and food navigation or tours (12.0%; Table B4).
- 463 PPR sites offered support services to address common barriers to access (<u>Table B5</u>). The most commonly offered support services were resource referrals (61.1%), shopping assistance (18.1%), produce delivery (16.9%), and transportation (13.6%; <u>Table B5</u>). FD sites and clinics most often provided resource referrals, while B&M sites, which included grocery stores with on-site pharmacies, provided COVID testing or vaccination much more often than resource referrals (<u>Figure 22</u>).
- 426 PPR sites utilized marketing activities to increase awareness of and participation in the project (<u>Table B6</u>). The most common marketing activity among all PPR site types was on-site signage or announcements (70.3%; <u>Table B6</u>; <u>Figure 22</u>). Other marketing activities included direct promotions distributed by mail, email, or phone (54.3%); online advertisements (21.8%), and multilingual promotions (16.4%; <u>Table B6</u>).

<sup>&</sup>lt;sup>42</sup> Percentages displayed are of sites that offered any nutrition education, support services, or marketing activities respectively. Percentages do not add up to 100 percent as some PPR sites offered multiple services.

**Figure 22.** Most Common Nutrition Education, Support Services, and Marketing Activities by PPR Site Types (2023-2024)<sup>42</sup>

	Nutrition Education	Support Services	Marketing Activities
Brick-and- Mortar	98% Cooking Demonstrations	66% COVID Testing or Vaccination	84% On-Site Signage or Announcements
Farm Direct	84% Cooking Demonstrations	69% Resource Referrals	62% On-Site Signage or Announcements
Clinics	87% Cooking Demonstrations	91% Resource Referrals	71% On-Site Signage or Announcements

# **GusNIP PPR Participants: Impacts on Households, Nutrition, and Health**

PPR grantees with active projects<sup>43</sup> collected participant-level data in year five. Analysis of participant-level outcomes for PPR projects is essential for understanding the impact of produce prescriptions on participants and their households. PPR projects evaluate changes in FV intake, food security status, and self-reported health. Analyses of these changes illustrate the impact of PPR projects on nutrition and overall well-being. Additionally, participant-level reporting clarifies who is reached by PPR projects. Participant-level data is a key component to determining the effectiveness of these programs and refining strategies for maximizing their reach and impact.

The following subsections use year five baseline survey data to describe characteristics of PPR participants. After discussing the characteristics of year five PPR participants, the remainder of the section uses data from projects that completed award requirements in year five to illustrate the impact of PPR participation on health.

<sup>&</sup>lt;sup>43</sup> All PPR grantees with active projects are expected to collect participant-level surveys throughout the life of their award.





#### Who Was Eligible to Participate in PPR?

To participate in a PPR project, an individual must have been eligible for SNAP or enrolled in medical assistance (e.g., Medicaid) and currently at risk for a diet-related health condition. Beyond these eligibility requirements, PPR projects could further define their areas of focus with additional enrollment criteria. For example, many PPR projects also included screening positive for food insecurity as an indicator of risk for diet-related health conditions. Flexibility to focus on specific health and nutrition concerns allows projects to address issues of the greatest concern in their communities (e.g., high blood pressure or diabetes).

# What Were the Characteristics of PPR Program Participants?

A total of 6,327 participants across 71 PPR projects completed baseline surveys at enrollment in year five. The number of baseline surveys collected per project ranged from as few as three to as many as 673, with an average of 89 baseline surveys collected per PPR project. Variability in the number of baseline surveys per project is related to the amount of time elapsed since a project's start date (e.g., whether the project is in its first or third year). The number of baseline surveys collected also reflects whether the project reached its cumulative participant recruitment goal in a prior year. Although the number of baseline surveys collected per site ranged widely, the baseline survey sample size in year five was nearly six times greater than the year four sample size (n = 1,062). This significant increase is likely due to the larger number of PPR grantees that started data collection in year five. Additionally, on average, year five PPR projects collected more surveys per project than year four.

The resulting participant-level data represented all four USDA NIFA regions (Appendix 8). The highest percentage of baseline surveys were collected from the Southern region (49.1%; Table 5). Distribution of surveys across geographic regions is influenced by the number of active PPR projects in each region and by different sample size requirements based on award type and capacity.

**Table 5.** Number of PPR Surveys Collected Across U.S. Regions (Defined by USDA NIFA)

Region	N (%)
Southern	3,104 (49.1%)
Northeast	1,819 (28.8%)
Western	960 (15.2%)
North Central	444 (7.0%)
Total	6,327

Baseline survey data indicated a varied sample of PPR participants. Most PPR participants who completed a baseline survey for year five were 45 years of age or older (61.5%) with an average age of 49.8 years, female (75.8%), White (36.4%), and non-Hispanic/Latino (62.5%; **Table B7**). Many participants described themselves as Black (20.8%), another race (12.9%), and/or Hispanic/Latino (35.8%; **Table B7**). Below, outcomes related to food security, FV intake, and health are detailed. Due to skipped questions or partially completed surveys, the number of participants completing each measure varied.

Of the 5,801 participants who completed the baseline measure for household food insecurity<sup>44</sup> in year five, only 30.2 percent reported household food security within the past 30 days.<sup>45</sup> More than double that percentage (69.8%) reported experiencing household food insecurity within the previous 30 days (**Table B8**). Comparatively, USDA reports 13.5 percent of all U.S. households in 2023 experienced food insecurity in the past 12 months.<sup>46</sup> The relatively high prevalence of household food insecurity among PPR participants at baseline is anticipated. PPR participation is limited to people with low incomes, and food insecurity is strongly associated with living under the federal poverty line.

<sup>&</sup>lt;sup>44</sup> Food Security in the U.S. - Survey Tools | Economic Research Service. Accessed February 19, 2025. <a href="https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools#six">https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools#six</a>.

<sup>&</sup>lt;sup>45</sup> Household food security includes participants reporting high household food security or marginal food security. Household food insecurity includes participants reporting low household food security or very low household food security.

<sup>&</sup>lt;sup>46</sup> Rabbitt MP, Reed-Jones M, Hales LJ, Burke, MP. *Household food security in the United States in 2023*, ERR-337, U.S. Department of Agriculture, Economic Research Service; 2024. <a href="https://doi.org/10.32747/2024.8583175.ers">https://doi.org/10.32747/2024.8583175.ers</a>.

Of the 5,614 participants who completed the 10-item Dietary Screener Questionnaire (DSQ) to measure daily FV intake at baseline in year five, the average FV intake was 2.33 cups/day (Table B9; DSQ is described in **Appendix 3**). These baseline results fall below the 2020-2025 U.S. Dietary Guidelines for Americans (DGA) recommendation of 3.5 to 5 total FVs cups/day. PPR participants' average reported vegetable intake at baseline (1.44 cups/day) was slightly lower than U.S. adults' average reported vegetable intake levels (1.55 cups/day).47 PPR participants' average fruit intake (0.89 cups/day) was similar to the U.S. adult average (0.88 cups/ day).47 These results underscore the opportunity for PPR projects to make progress toward the goal of improving participants' health through increased consumption of FVs.

Of the 6,258 participants who self-reported their health status at baseline, 14.0 percent reported poor health status, 46.4 percent reported fair health status, and 37.9 percent reported a health status of good, very good, or excellent (**Table B10**). This finding is considerably different from the perceived health status of most U.S. adults, among whom approximately 80 percent reported a health status of good, very good, or excellent.<sup>48</sup> Since self-reported health is positively correlated with actual health,<sup>49</sup> the high number of PPR participants who reported fair or poor health at baseline indicates that PPR projects enrolled participants who are at risk for a diet-related health condition.

<sup>&</sup>lt;sup>50</sup> Most projects set at least a 60-day minimum as the time period between baseline and follow-up surveys, but the amount of time between baseline and follow-up surveys varied among projects.



 <sup>&</sup>lt;sup>47</sup> U.S. Department of Agriculture, Economic Research Service. Food Consumption, Nutrient Intakes, and Diet Quality.
 Updated February 25, 2025. Accessed February 28, 2025.
 https://www.ers.usda.gov/data-products/food-consumption-nutrient-intakes-and-diet-quality.
 (FVI in cups/day estimates were calculated using FVI in cups/day for females, age 20+ and males, age 20+ cohorts and applying sample size proportions.)
 <sup>48</sup> Adult Self-Reported Health Status.
 KFF. Accessed February
 19, 2025. https://www.kff.org/other/state-indicator/adult-self-reported-health-status/.

<sup>&</sup>lt;sup>49</sup> Health Status - Health, United States. Published June 2023. Available at: <a href="https://www.cdc.gov/nchs/hus/topics/health-status.htm">https://www.cdc.gov/nchs/hus/topics/health-status.htm</a>.



#### How Did We Analyze the Impact of PPR Participation?

Participant-level impact of PPR projects was evaluated by comparing individual participants' baseline and follow-up surveys. Baseline surveys were administered around the time of enrollment to capture a snapshot of participants' food security. FV intake, and perceived health experiences prior to PPR participation. Follow-up surveys were administered after participants were in the project for a period of time determined by the PPR project.<sup>50</sup> Follow-up surveys measured participants' food security, FV intake, and perceived health experiences after receiving services through the PPR project. Comparative analysis of baseline and follow-up surveys included data from all participants who: (1) participated in a PPR project that completed its award in year five, (2) had a matched baseline and follow-up survey from any year of the PPR project, (3) had not participated in the PPR project prior to completing the baseline survey, and (4) had engaged with the PPR project to receive FVs at least once prior to completing the follow-up survey. These criteria ensured the analysis included participants from throughout the entire lifecycle of completed projects. Criteria also ensured that baseline and follow-up data were collected from the same participants, rather than different groups of people. Additionally, these criteria limited the analysis to participants who were new to the project at baseline but had engaged with the project prior to completing the follow-up survey.

In this way, changes in participants' responses from baseline to follow-up reflect changes from before engagement to after engagement with the project. These changes are therefore useful to demonstrate the impact of PPR participation on key outcomes.

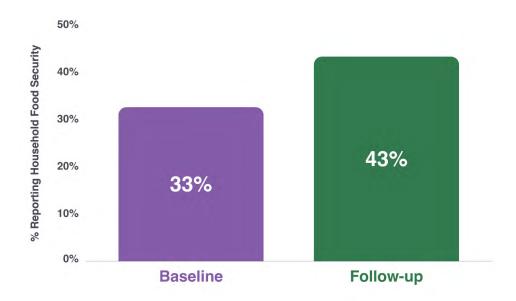
Of the 31 PPR projects that completed awards in year five, 22 projects provided baseline and follow-up surveys from 1,962 participants who met the previously mentioned inclusion criteria. These 22 projects operated between 2020-2024 and collected baseline and follow-up surveys at any point during those years.

Appendix 9 presents a comprehensive set of tables that describe the 1,962 participants whose data were used to describe PPR project impact on participants. The average age of participants included in the year five impact analysis was 55.8 years. Most participants were female (75.9%) and non-Hispanic/Latino (80.1%; Table B7). Many participants described themselves as White (33.4%) and/or Black or African American (32.4%; Table B7). Additional information about participants' age, sex, race, ethnicity, and region is reported in Table B7.

<sup>&</sup>lt;sup>50</sup> Most projects set at least a 60-day minimum as the time period between baseline and follow-up surveys, but the amount of time between baseline and follow-up surveys varied among projects.

PPR projects are intended to support participants' household food security. Household food security was assessed using the U.S. Household Food Security Survey Module: Six-Item Short Form. 51 Within the 22 projects included in this analysis, 1,861 participants completed the food security measure at baseline and follow-up. At baseline, 32.6 percent of participants reported household food security within the previous 30 days and 67.4 percent reported experiencing household food insecurity within the previous 30 days. At the time of the follow-up survey, 43.3 percent of participants reported household food security and 56.7 percent reported experiencing household food insecurity within the previous 30 days (Table B11; Figure 23). These results demonstrate a meaningful increase in household food security after participation in a PPR project. In other words, household food security improves after participation in a PPR project. Increased household food security among PPR participants from baseline to follow-up aligns with results observed in other studies of produce prescriptions. 52, 53, 54, 55

**Figure 23.** Percentage of PPR Participants Who Reported Household Food Security Increased from Baseline to Follow-up (2023-2024; n = 1,861)\*





<sup>&</sup>lt;sup>51</sup> Household food security includes participants reporting high household food security or marginal food security. Household food insecurity includes participants reporting low household food security or very low household food security.

<sup>&</sup>lt;sup>52</sup> Jones LJ, Van Wassenhove-Paetzold J, Thomas K, et al. *Impact of a fruit and vegetable prescription program on health outcomes and behaviors in young navajo children*. Curr Dev Nutr. 2020;4(8):nzaa109. https://doi.org/10.1093/cdn/nzaa109.

<sup>&</sup>lt;sup>53</sup> Ridberg RA, Bell J F, Merritt KE, et al. *A pediatric fruit and vegetable prescription program increases food security in low-income households*. J Nutr Educ Behav. 2019;51(2):224-230.e1. https://doi.org/10.1016/j.jneb.2018.08.003.

<sup>&</sup>lt;sup>54</sup> Aiyer JN, Raber M, Bello RS, et al. *A pilot food prescription program promotes produce intake and decreases food insecurity*. Transl Behav Med. 2019;9(5):922-930. doi:10.1093/tbm/ibz112. https://doi.org/10.1093/tbm/ibz112.

<sup>&</sup>lt;sup>55</sup> Hager K, Du M, Li Z, et al. *Impact of produce prescriptions on diet, food security, and cardiometabolic health outcomes: A multisite evaluation of 9 produce prescription programs in the United States.* Circ Cardiovasc Qual Outcomes. Sep 2023;16(9):e009520. <a href="https://doi.org/10.1161/CIRCOUTCOMES.122.009520">https://doi.org/10.1161/CIRCOUTCOMES.122.009520</a>.

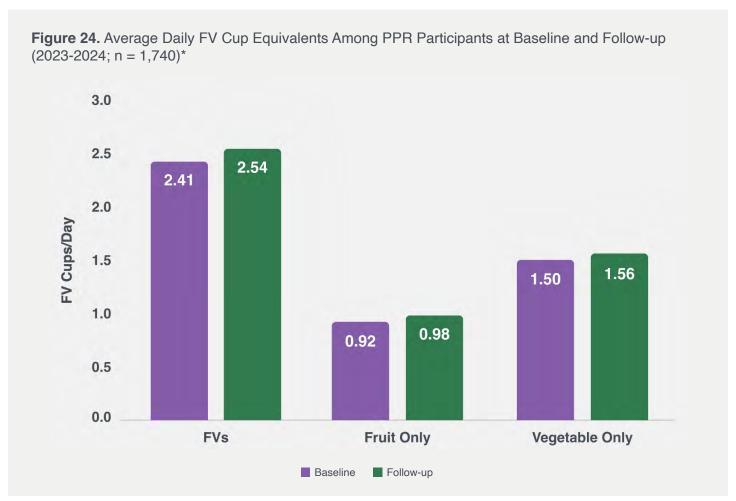
PPR projects aim to improve health outcomes through increased consumption of FVs. The year five results indicate progress towards this goal. Previous research has established that FV intake is associated with improved health outcomes.<sup>56</sup> In other words, as FV intake increases, instances of death and disease decrease. Achieving adequate FV intake can be challenging for households living below the federal poverty line, especially due to the increasing cost of purchasing FVs.<sup>1</sup> FV intake for PPR survey respondents was calculated using the 10-item DSQ (described in **Appendix 3**).

Within the 21 projects included in this analysis, <sup>57</sup> 1,740 participants completed the DSQ for daily FV intake at baseline and follow-up. The average baseline FV intake was 2.41 FV cups/day (<u>Table B12</u>; <u>Figure 24</u>). At follow-up, PPR participants reported an average FV intake of 2.54 cups/day, a 0.13 FV cups/day increase from baseline. This increase included a 0.06 cups/day increase in fruit intake (from 0.92 to 0.98 cups/day) and a 0.06 cups/day increase in vegetable intake (from 1.50 to 1.56 cups/day; <u>Table B12</u>; <u>Figure 24</u>). This increase represents a small but meaningful<sup>37</sup> step toward consuming the recommended number of daily cups of FVs.



<sup>56</sup> Wallace TC, Bailey RL, Blumberg JB, et al. *Fruits, vegetables, and health: A comprehensive narrative, umbrella review of the science and recommendations for enhanced public policy to improve intake.* Crit Rev Food Sci Nutr. 2020;60(13):2174-211. <a href="https://doi.org/10.1080/10408398.20">https://doi.org/10.1080/10408398.20</a> 19.1632258.

<sup>57</sup>Twenty-two projects provided baseline and follow-up surveys from participants that met the inclusion criteria for this analysis. Of these 22 projects, one project was excluded from the analysis because its surveys were missing data needed to calculate FV intake.



<sup>\*</sup>Participants included in this figure are from 21 projects that completed their award in Y5 and collected both baseline and follow-up surveys from participants.

The 0.13 cups/day increase in FV intake among participants in the 21 projects that completed their award in Y5 is consistent with the 0.19 cups/day increase reported in the GusNIP Year Four Impact Findings by the four projects that completed awards that year.

Among the 21 projects, FV intake change varied widely. At the highest end of the range, participants from one project increased FV intake by an average of 0.33 cups/day. Conversely, participants in two projects increased FV intake by an average of only 0.05 cups/day.

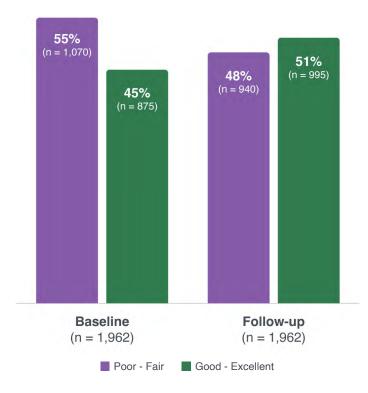
Variations in FV intake across projects may be related to variations in PPR project design. PPR projects vary in intensity, duration, and complementary services offered. These differences can lead to variations in participant engagement and prescription redemption, which can in turn affect FV intake. As noted above, NTAE researchers are leveraging data from PPR projects to show how project design choices are associated with participant engagement and outcomes. See "New Developments in PPR Evaluation" for details.



### How Did PPR Projects Impact Perceived Health?

As previously noted, a goal of PPR projects is to improve health through increased consumption of FVs. Therefore, PPR participants were asked to selfreport on their health as either poor, fair, good, very good, or excellent. Within the 22 projects included in this analysis, 1,962 participants reported perceived health<sup>58</sup> at baseline and follow-up (<u>Table B10</u>). From baseline to follow-up, there was an increase in participants reporting good, very good, or excellent health (baseline = 44.7%; follow-up = 51.0%; Figure 25). Moreover, from baseline to follow-up there was a decrease in the number and proportion of PPR participants who reported poor health (baseline = 11.4%; follow-up = 8.7%) or fair health (baseline = 43.4%; follow-up = 39.5%; Table B10).

**Figure 25.** Perceived Health of PPR Participant at Baseline and Follow-up Assessment (2023-2024; n = 1,962)\*



NOTE: This figure does not include the following categories: don't know/prefer not to answer and missing.



# Improvements in perceived health status after PPR participation are promising.

Single-item assessments of perceived health (such as the one used for PPR projects) are used as proxies for actual health.<sup>59</sup> Moreover, self-reporting worse perceived health has been consistently associated with higher morbidity<sup>60</sup> and mortality risk.<sup>61</sup> People living below the federal poverty line tend to report fair or poor health status more often than people with higher income levels.<sup>59</sup> This is important to note because PPR participants must be eligible for SNAP or enrolled in medical assistance, both of which are limited to participants with low incomes. In addition, these improvements in perceived health status are particularly meaningful because PPR participants already had or were at risk for a chronic condition at the time of enrollment.

<sup>\*</sup>Participants included in this figure are from 22 projects that completed their award in Y5 and collected both baseline and follow-up surveys from participants.

<sup>&</sup>lt;sup>58</sup> Self-reported health was measured using a single-item tool developed by the Centers for Disease Control and Prevention. Citation: Centers for Disease Control and Prevention. Measuring healthy days: Population assessment of health-related quality of life. Atlanta Georgia CDC. 2000. <a href="https://stacks.cdc.gov/view/cdc/6406">https://stacks.cdc.gov/view/cdc/6406</a>.

<sup>&</sup>lt;sup>59</sup> Health Status - Health, United States. Published June 2023. Available at: <a href="https://www.cdc.gov/nchs/hus/topics/health-status.htm">https://www.cdc.gov/nchs/hus/topics/health-status.htm</a>.

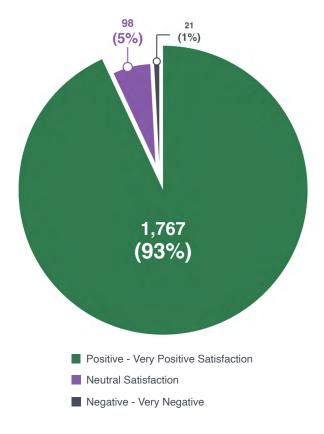
<sup>60</sup> Latham K, Peek CW. *Self-rated health and morbidity onset among late midlife U.S. adults.* J Gerontol B Psychol Sci Soc Sci. 2013;68(1):107-116. **doi:10.1093/geronb/gbs104**.

<sup>&</sup>lt;sup>61</sup> DeSalvo KB, Bloser N, Reynolds K, et al. *Mortality prediction with a single general self-rated health question*. J Gen Intern Med. 2006;21:267-75. <a href="https://doi.org/10.1111/j.1525-1497.2005.00291.x">https://doi.org/10.1111/j.1525-1497.2005.00291.x</a>.

# How Satisfied Were Participants With PPR Projects?

The PPR follow-up survey asked participants to rate their satisfaction with PPR projects. Among the 1,962 participants who responded to this question, the overwhelming majority (93.1%) felt positive or very positive about their PPR participation (Figure 26; Table B13). A small percentage (1.1%) felt negative or very negative. Participants' consistent satisfaction is a strong indication that PPR projects are meeting or exceeding participants' expectations. This high level of satisfaction coupled with consistent evidence of PPR projects' positive impact are indicative of successful implementation of PPR in communities across the United States.

**Figure 26.** Program Satisfaction Among PPR Project Participants (2023-2024; n = 1,962)\*



<sup>\*</sup>Figure excludes missing responses.





#### New Developments in PPR Evaluation

Year five was an exciting year in PPR evaluation. NTAE researchers worked closely with grantees and other partners to conduct data collection and analysis for three studies designed to answer questions of interest to GusNIP practitioners, policymakers, and researchers. Given that the GusNIP PPR program is the only nationwide initiative of its scale, there is a unique opportunity to learn how to design and deploy effective PPR projects within dozens of distinctive communities across the United States. One of the studies will identify characteristics shared among PPR projects with the highest levels of prescription redemption. The second study will demonstrate the utility of a powerful and low-burden survey that can estimate the impact of PPR participation on healthcare utilization when insurance claims data are unavailable. The third study will show the opportunities for using electronic health records to calculate the health impacts of PPR participation across a growing group of PPR projects sharing data with the NTAE. Interpretation of the three studies described below is ongoing, and full results are forthcoming.

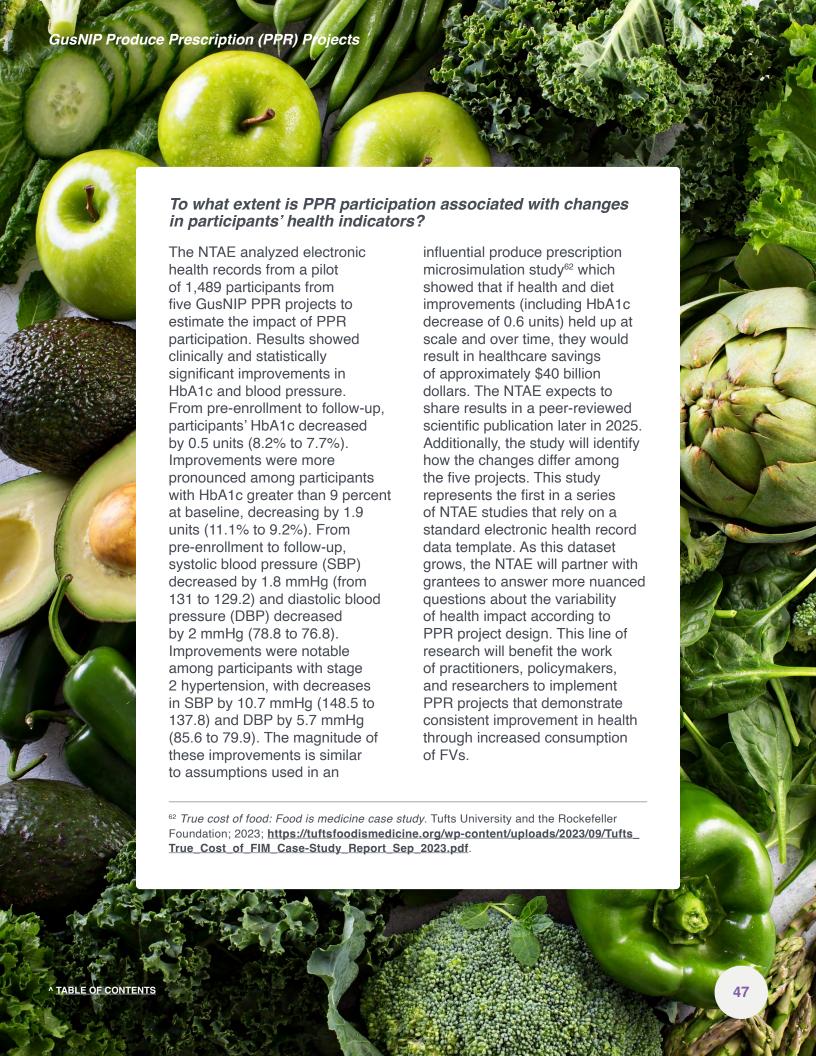
## How does the design of PPR projects affect participant engagement and outcomes?

The NTAE partnered with the American Heart Association's Health Care by Food initiative to study the association between project design characteristics and participant engagement. Specifically, NTAE researchers categorized 77 current and past PPR projects according to different design characteristics (e.g., Does the project offer home delivery of FVs? What types of nutrition education does the project offer?). Researchers then used grantee-provided prescription redemption data to determine which characteristics were associated with participants remaining active in the projects as opposed to dropping out early.

The research team also interviewed PPR grantees with high redemption rates as well as those facing redemption challenges to learn lessons about redemption. Results of this study are under peer review and the NTAE plans to make them publicly available later in 2025. Based upon this study, the NTAE will release a best-practices guide to help current and future PPR practitioners optimize the impact and efficiency of their projects. The best practices guide will be available on the **Nutrition Incentive Hub Website** as soon as it is ready.

# To what extent is PPR participation associated with changes in participants' healthcare utilization?

PPR practitioners, policymakers, and researchers are motivated to learn about the types of healthcare utilization that PPR projects may improve (e.g., Will PPR participation decrease emergency department visits? Will PPR participation increase preventive care visits?) However, for regulatory and privacy reasons, it is extremely difficult to access insurance claims data. Seven PPR grantees pilot tested a brief survey adapted by the NTAE to measure PPR participants' healthcare utilization. Participants from the seven projects were asked to complete the survey around the time of PPR enrollment and again several months later. As an alternative to requesting insurance claims data, the survey assessed participants' visits to the doctor for regularly scheduled checkups, emergency department visits, overnight hospital visits, and more. Analysis of survey data from 382 participants is complete. The NTAE will share results in a peer-reviewed scientific publication later in 2025. Findings from this study will help demonstrate the usefulness and effectiveness of the self-report measure of healthcare utilization. GusNIP provides an opportunity for a nationwide group of PPR practitioners to use this self-report measure and compare results with those from PPR practitioners who are able to access insurance claims data.



### **Conclusions and Next Steps for Future Years**

Since 2019, GusNIP has paved the way toward a healthier tomorrow for American communities through innovative cost-effective opportunities for families, farmers, and local businesses. In its fifth year, GusNIP achieved continued success – operated at the greatest number of sites, saw participants redeem the largest dollar amount of incentives for FVs, and demonstrated the largest local economic impact to date.

Specifically, GusNIP reached approximately 200,000 American families each month resulting in \$54.4 million in redeemed nutrition incentives and produce prescriptions that nourished our nation's communities. Additionally, nutrition incentive dollars flowed through more than 5,000 food retail outlets and clinics located in 40 states and Puerto Rico that directly supported farmers and businesses with \$112 million in local economic impact, ensuring taxpayer money is invested into American communities.

With funding and partnership from USDA NIFA, the NTAE and Nutrition Incentive Hub are dedicated to empowering GusNIP applicants, grantees, and NI and PPR practitioners with essential resources and hands-on support. Whether enhancing efficiency

or fostering innovation in project evaluation, the NTAE collaborates with community experts across the United States to ensure GusNIP is fueling local economies, stretching America's food dollars, making healthcare more effective, and promoting a healthier future for Americans living below the federal poverty line.

The NTAE's support and resources positively impacted project effectiveness in year five. The NTAE's evaluation showed that continued federal investment in NI and PPR projects has led to better perceptions of health, improved food security, increased FV intake, and potential healthcare savings among American families living below the federal poverty line.



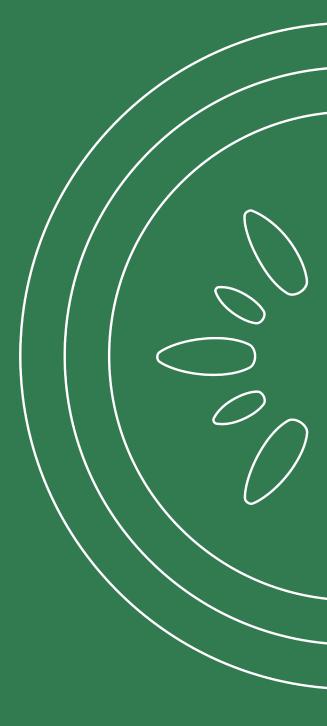


The NTAE is committed to continuing its support for NI and PPR projects in the coming years to maximize federal investment and achieve GusNIP goals. Looking ahead, the NTAE will prioritize the following strategies:

- Provide high-quality training and technical assistance that clarifies statutory, regulatory, and administrative requirements of GusNIP as a synergistic opportunity within USDA federal nutrition programs.
- 2 Collaborate with GusNIP grantees and applicants to expand projects in areas with gaps in service, such as rural communities, by utilizing NTAE tools like the GusNIP Site Map.
- 3 Revise core measures to strengthen GusNIP's story, highlight innovative strategies, and align with current public health approaches.
- Evaluate modernized delivery systems that improve the efficiency and customer service experience among those who participate, including the integration of electronic health records and incentive or prescription delivery systems.
- 6 Identify and promote exemplary models of innovation that effectively address critical challenges, such as rural prosperity, disaster relief, food loss and waste, and chronic disease prevention.
- 6 Enhance the efficiency and effectiveness of local community GusNIP projects by providing access to resources and national best practices, ensuring that programs can scale and sustain themselves based on state policy options.
- Release groundbreaking findings from sub-study evaluations that highlight the impact of GusNIP on healthy choices, healthy outcomes, healthy families, and healthy communities.
- 8 Continue to deepen the connections between GusNIP families, American farmers, and food retailers to ensure that local economies benefit from increased demand for FVs.







#### **FUNDING STATEMENT**

This work is supported by Gus Schumacher Nutrition Incentive Program grant no. 2019-70030-30415/project accession no. 1020863 from USDA's National Institute of Food and Agriculture.

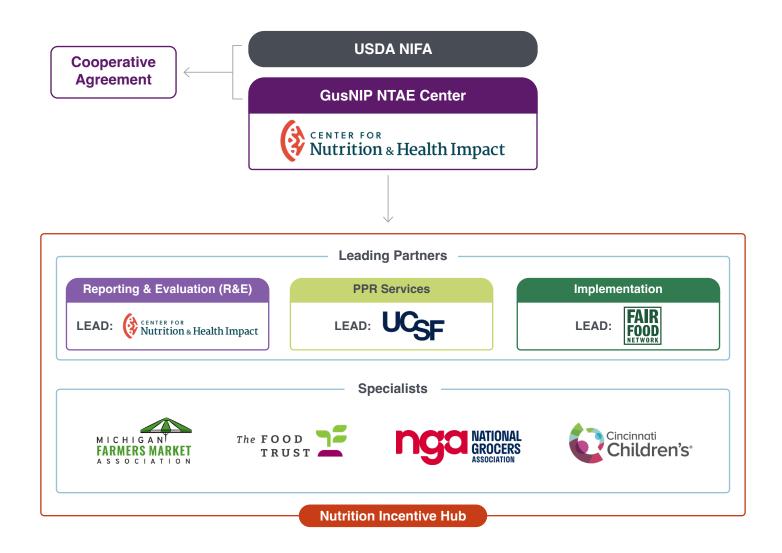


# **Appendix 1.** Glossary of Acronyms/Abbreviations

Abbreviation/Acronym	Full Name/Description
Α	
ARPA	American Rescue Plan Act
В	
B&M	brick-and-mortar
С	
CBIF	Capacity Building and Innovation Fund
CDC	Centers for Disease Control and Prevention
CNHI	Center for Nutrition & Health Impact
COVID or COVID-19	coronavirus disease of 2019
CSA	community supported agriculture
D	
DGA	Dietary Guidelines for Americans
DSQ	Dietary Screener Questionnaire
E	
EBT	electronic benefits transfer
EFNEP	Expanded Food and Nutrition Education Program
F	
FD	farm direct
FNS	Food and Nutrition Service
FQHC	Federally Qualified Health Center
FVI	fruit and vegetable intake
FVs	fruits and vegetables
FY	fiscal year
G	
GusCRR	GusNIP COVID Relief and Response
GusNIP	Gus Schumacher Nutrition Incentive Program (formerly the FINI Program).  Also refers to the family of awards from the USDA National Institute of Food and Agriculture (GusNIP, GusCRR, and ARPA funded awards).
Н	
HbA1c or A1c	hemoglobin A1c (measurement for blood sugar)

Abbreviation/Acronym	Full Name/Description
N	
NAP	Nutrition Assistance Program
NHANES	National Health and Nutrition Examination Survey
NI	nutrition incentive (general; includes SNAP incentives); Nutrition Incentive Program funded by GusNIP
NIFA	National Institute of Food and Agriculture, USDA
NTAE or NTAE Center	Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center. Also known as the NTAE Center. The Center for Nutrition & Health Impact is the current NTAE awardee for GusNIP.
P	
PA	program advisor
PHI	protected health information
PII	personally identifiable information
PPR	produce prescription (general); Produce Prescription Program funded by GusNIP
R	
RFA	request for applications
S	
SNAP	Supplemental Nutrition Assistance Program
SNAP-Ed	Supplemental Nutrition Assistance Program Education
U	
USDA	United States Department of Agriculture
U.S.	United States of America
W	
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
Υ	
Υ	year

### **Appendix 2.** Core Partner Structure



### **Appendix 3.** Participant-Level Data Collection Methodology

# Overview of Participant-Level Core Measures for the Gus Schumacher Nutrition Incentive Program (GusNIP)

What are participant-level outcomes?
Participant-level outcomes are meant to assess the experiences of individuals receiving services from GusNIP projects. These outcomes are measured using a set of survey items (described below) validated among populations with low income that were selected for feasibility and ease of use.

What are GusNIP's participant-level core measures? Participant-level core measures evaluate key participant-level outcomes related to the GusNIP intervention. In 2019, the Nutrition Incentive Program Training, Technical Assistance, Evaluation, and Information Center (NTAE) worked with the U.S. Department of Agriculture (USDA), National Institute of Food and Agriculture (NIFA), grantees, sites, and expert partners to identify and establish methods and measures to evaluate core participant-level outcomes.

When are participant-level outcomes collected? Nutrition incentive project (NI) grantees collect cross-sectional surveys annually throughout the award duration with sample size dependent on project size (i.e., pilot, standard, or large scale). Produce prescription project (PPR) grantees collect surveys at baseline and follow-up among a cohort of participants enrolled in the project over the duration of the award. NI and PPR participant-level data collected by August 31 are submitted annually to the NTAE.

#### **Participant-Level Survey Modules**

Rationale for the selection of each survey module, which contain the participant-level core measures, is described on the Nutrition Incentive Hub website for <u>NI projects</u> and for <u>PPR projects</u>. The following sections provide a brief description of each survey module and how they were administered.

Food Security. Participants were asked to respond to the USDA Six-Item Household Food Security Survey Module. The module includes six questions about food eaten in the household within the last 30 days and whether the participant was able to afford the food needed by their household. Applying USDA's scoring mechanism, each affirmative response received one point, for a possible total score range of 0-6. For all grantees, response options "often true" or "sometimes true" were affirmative. Total scores of 0-1 were considered "high/marginal food security," scores of 2-4 were considered "low food security," and scores of 5-6 were considered "very low food security."

Fruit and Vegetable Intake (FVI). To assess FVI, participants were asked about their intake frequency of 10 food and beverage items: 100% fruit juice, fruit, salad, fried potatoes, other kinds of potatoes, cooked dried beans, other vegetables, salsa, pizza, and tomato sauce. Items were sourced from the Dietary Screener Questionnaire (DSQ) used in the National Health and Nutrition Examination Survey (NHANES) 2009-2010 series.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Sites are locations where GusNIP projects are administered. They are referred to as "firms" in the GusNIP Request for Applications. All NI sites are SNAP-authorized food retail outlets.

<sup>&</sup>lt;sup>2</sup> Epidemiology and Genomics Research Program. (n.d). *Dietary screener questionnaire in the NHANES 2009-10: Background.*National Institutes of Health, National Cancer Institute, Division of Cancer Control and Population Sciences. <a href="https://epi.grants.cancer.gov/nhanes/dietscreen/">https://epi.grants.cancer.gov/nhanes/dietscreen/</a>.

Some grantees further tailored the food examples within each question to be more culturally relevant among the communities they serve. Response options for each item included: "Never," "1 time last month," "2-3 times last month," "1 time per week," "2 times per week," "3-4 times per week," "5-6 times per week," "1 time per day," "2 or more times per day," with the addition of "2-3 times per day," "4-5 times per day," and "6 or more times per day" for the 100% fruit juice item only. Frequency responses were converted to daily frequencies according to the table below.

#### Daily Frequency Values for 10-item DSQ

Frequency Response	Daily Frequency Value
Never	0
1 time last month	0.033
2-3 times last month	0.083
1 time per week	0.143
2 times per week	0.286
3-4 times per week	0.5
5-6 times per week	0.786
1 time per day	1
2 or more times per day	2
2-3 times per day	2.5
4-5 times per day	4.5
6 or more times per day	6

After responses were converted to daily frequency values, data were inputted into a scoring algorithm specifically developed for the DSQ to determine daily cup equivalents of FVI based upon participant demographics.

Sociodemographic Characteristics.

Sociodemographic data are limited to age, sex, race, and ethnicity. Basic demographic information allows researchers to understand which populations NI and PPR projects are reaching and whether project impacts differ among those populations. Demographic data are also used in the DSQ calculation.

Other Project Impacts. All participants were asked to respond to a single question about program satisfaction: "Overall, how would you rate your experience with [NI or PPR project name]?" Response options were on a 5-point Likert scale ranging from very negative to very positive. Participants were also asked a single question about their health status: "Would you say in general that your health is poor, fair, good, very good, or excellent?"

### Supplementary Participant-Level Data Collection Resources

GusNIP NTAE developed and maintains a list of optional topics and constructs for participantlevel surveys to help grantees identify additional items that may be of interest and relevant to their specific project4. With a growing number of GusNIP grantees focused on families, GusNIP NTAE has developed a suite of youth and parent survey items and modules. These tools are used when a project has a child-focused component and is interested in exploring youth health outcomes. The full versions of these tools, including baseline and follow-up surveys for both children and parents, can be found on the **Supplementary and Recommended Metrics** page of the Nutrition Incentive Hub website. Additionally, some GusNIP PPR grantees piloted a survey module for self-reported healthcare utilization adapted from NHANES 2017-2018 Hospital Utilization and Access to Care. This resource is available upon request. Although supplementary and recommended participant-level metrics are relevant and of interest to specific projects, these data are not reported by the GusNIP NTAE in the Impact Findings.

<sup>&</sup>lt;sup>3</sup> The fruit juice item includes three response options that are not included in the other items ("2-3 times per day," "4-5 times per day," and "6 or more times per day"). Food items have a response option "2 or more times per day."

<sup>&</sup>lt;sup>4</sup> Additional items are often related to the main outcomes of FVI and food security, such as hunger-coping and trade-off behaviors, transportation, food literacy and preferences, and health conditions.

#### **Sample Size Requirements**

The tables below show survey sample size requirements by year and project type. Program advisors (PAs) work one-on-one with grantees to determine the best sampling and survey administration procedures to achieve the required sample size. NI grantees collect surveys once annually. PPR grantees collect surveys across their award period, surveying the same participants at two time points (baseline and follow-up).

#### **GusNIP Sample Size Requirements**

Award Year	GusNIP Pilot Projects (NI)	GusNIP Projects (NI)	GusNIP Large Scale Projects (NI)	GusNIP Produce Prescription Projects
2019	Not required	150	230	100-130
2020	Not required	100	150	100-130
2021	Not required	100	150	100-130
2022	Not required	100	150	100-130

#### **GusCRR Sample Size Requirements**

Award Year	I (-IIIe) - BB Brolecte (NII)		GusCRR Produce Prescription Projects
2021	75	100	75

#### **ARPA Sample Size Requirements**

Award Year	ARPA PPR Meritorious	ARPA PPR Enhancement	ARPA PPR Standard
2022	100-130	100-130	100-130

#### Inclusion and Exclusion Criteria for Participant-Level Surveys

NI survey respondents were required to be 18 years of age or older and participants of an NI project. PPR survey respondents were recruited through health clinics or health programs and were PPR project participants. This meant they were 18 years of age or older and met any specific PPR project eligibility criteria outlined by the grantee (e.g., diabetes diagnosis, Medicaid recipient). Each grantee's final sample size was comprised of surveys that (1) had responses to at least 75% of survey questions, (2) had complete responses for the DSQ and food security modules, and (3) had responses for age and sex.

### **Appendix 4.** Site-Level Reporting Methodology

# Overview of Site-Level Core Measures for GusNIP

What are site-level outcomes? Site-level outcomes monitor project implementation and identify which properties of NI and PPR projects are most effective at increasing incentive redemption. These core measures are collected from food retail outlets as well as clinics and are reported by farm direct (FD), brick-and-mortar (B&M), and clinic categories. Site-level data, such as the dollar amount of incentives distributed and redeemed each month, are also used to calculate local economic impact.

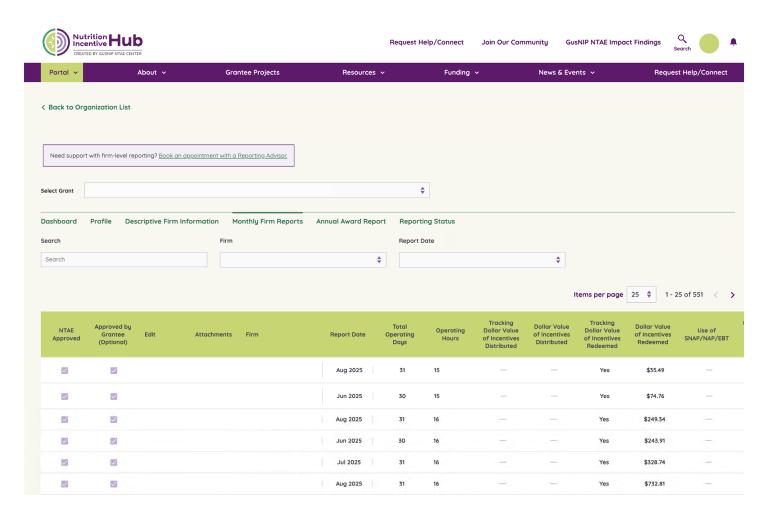
What are GusNIP's site-level core measures? The site-level core measures evaluate key site-level outcomes related to the GusNIP intervention.

In 2019, the NTAE worked with USDA NIFA, grantees, sites, and expert partners to identify methods and measures to evaluate core site-level outcomes.

When are site-level outcomes collected? NI and PPR grantees work with collaborating sites to submit the site-level data to the GusNIP NTAE monthly and annually.

#### Site-Level Data Collection

Grantees submitted site-level reports to the GusNIP NTAE via the **Nutrition Incentive Hub portal**. The following screenshot shows the portal reporting page with grantee and site information redacted.



#### Site-level reporting data come from three sources:

- Monthly Site Reports (1 per site per month)
- Annual Site Reports (1 per site per year on September 30)
- Grantee Annual Report (1 per grant award per year on September 30)

Site-level reporting data are based on a series of core measures. The tables below summarize core measures with specific attention to variation by project type (NI or PPR) and site type (B&M, FD, clinic).

#### **NI Site-Level Core Measures**

Core measures for **grantee organizations** are outlined below. Grantees report these measures for each award. Therefore, multiple reports are required if the grantee has multiple awards.

Core Measure	# of Fields	Example Item	Rationale
Grantee-level information Reported annually	5	Expenses associated with establishment and operations of the project.	Allows for determination of actual costs and provides input to cost-related analyses.

Core measures for **brick-and-mortar sites**, including supermarkets, grocery stores, and small format stores, are outlined below. Grantees are required to report these measures for each of their brick-and-mortar sites.

Core Measure	# of Fields	Example Items	Rationale
Site-level descriptive information  Reported annually	17-20*	Financial instrument used for SNAP purchases and incentives.  Products eligible for incentives.	Provides site-level descriptive information to understand contextual elements of project delivery and implementation.
Site-level numeric measures  Reported monthly	12	Amount (\$) of incentives redeemed.  Number of unique incentive customers.	Describes NI utilization and redemption patterns and tracks "dose" of intervention.

<sup>\*</sup> Exact number of fields varies depending upon additional programming offered at the site.

Core measures for **farm direct sites**, including farmers markets, farm stands, and CSAs, are outlined below. Grantees are required to report these measures for each of their farm direct sites.

Core Measure	# of Fields	Example Items	Rationale
Site-level descriptive information  Reported annually	17-20*	Financial instrument used for SNAP purchases and incentives.  Products eligible for incentives.	Provides site-level descriptive information to understand contextual elements of project delivery and implementation.
Site-level numeric measures Reported monthly	13	Amount (\$) of incentives redeemed.  Number of unique incentive customers.  Number of fruit and vegetable vendors.	Describes NI utilization and redemption patterns and tracks "dose" of intervention.

<sup>\*</sup> Exact number of fields varies depending upon additional programming offered at the site.

#### **PPR Site-Level Core Measures**

Core measures for **grantee organizations** are outlined below. Grantees report these measures for each award. Therefore, multiple reports are required if the grantee has multiple awards.

Core Measure	# of Fields	Example Item	Rationale
Grantee-level information	5	Expenses associated with establishment and	Allows for determination of actual costs and
Reported annually	J	operations of the project.	provides input to cost- related analyses.

Core measures for **brick-and-mortar sites**, including supermarkets, grocery stores, and small format stores, that allow redemption of produce prescriptions, are outlined below. Grantees are required to report these measures for each of their brick-and-mortar sites.

Core Measure	# of Fields	Example Items	Rationale
Site-level descriptive information  Reported annually Site-level numeric measures  Reported monthly	15-18*	Financial instrument used for PPR incentives.  FV products eligible for incentives.	Provides site-level descriptive information to understand contextual elements of project delivery and implementation.
Site-level numeric measures Reported monthly	10	Amount (\$) of PPR incentives redeemed.	Describes PPR utilization and redemption patterns and tracks "dose" of intervention.

<sup>\*</sup> Exact number of fields varies depending upon additional programming offered at the site.

Core measures for **farm direct sites**, including farmers markets, farm stands, and CSAs, that allow redemption of produce prescriptions are outlined below. Grantees are required to report these measures for each of their farm direct sites.

Core Measure	# of Fields	Example Items	Rationale
Site-level descriptive information  Reported annually	15-18*	Financial instrument used for PPR incentives.  FV products eligible for incentives.	Provides site-level descriptive information to understand contextual elements of project delivery and implementation.
Site-level numeric measures  Reported monthly	10	Amount (\$) of PPR incentives redeemed.	Describes PPR utilization and redemption patterns and tracks "dose" of intervention.

<sup>\*</sup> Exact number of fields varies depending upon additional programming offered at the site.

Core measures for **clinics** that enroll participants, distribute produce prescriptions, and/or allow the redemption of produce prescriptions are outlined below. Grantees are required to report these measures for each of their clinics that enroll, distribute, and/or allow the redemption of produce prescriptions.

Core Measure	# of Fields	Example Items	Rationale
Site-level descriptive information  Reported annually	13-27*	Financial instrument used for PPR incentives.  FV products eligible for incentives.	Provides site-level descriptive information to understand contextual elements of project delivery and implementation.
Site-level numeric measures Reported monthly	10	Amount (\$) of PPR incentives distributed.  Number of PPR project participants enrolled and completed.	Describes PPR utilization and redemption patterns and tracks "dose" of intervention.  Tracks project participation.

<sup>\*</sup> Exact number of fields varies depending upon clinic site type (i.e., enrollment site, distribution site, redemption site) and if the clinic offers additional programming.

#### **Economic Impact**

NTAE used the **Local Economic Impact Calculator** to summarize economic impact of NI and PPR projects. The purpose for using this calculator was to maintain year-to-year consistency of the local economic impact estimate reported in this and previous impact findings reports. The impact calculation uses the dollar amount of incentives redeemed at a site in combination with a geographically specific multiplier to estimate the change in the local community economy associated with incentive redemption.

The estimated impact includes both direct effects (e.g., incentive redemption at participating sites) as well as indirect effects (e.g., how sites spend the extra revenue on hiring, marketing) and is indicative of the upper bound of economic impact an initiative (e.g., GusNIP project) may generate.

### **Appendix 5.** Description of 2023 GusNIP Grantees

#### 2023 GusNIP Grantees; Produce Prescription Projects (PPR)

The 2023 GusNIP PPR RFA states that all GusNIP PPR projects must:

- 1. Include a letter of support from one or more healthcare partners.
- 2. Prescribe fresh fruits and vegetables to eligible individuals.

Individuals are eligible to participate in a GusNIP PPR project if they are eligible for:

- 1. Benefits under the Food and Nutrition Act of 2008 (7 U.S.C. 2011 et seq.); or
- 2. Medical assistance under a state plan or a waiver of such a plan under title XIX of the Social Security Act (42 U.S.C. 1396 et seq.) and enrolled under such plan or waiver; and
- 3. A member of a low-income household that suffers from, or is at risk of developing, a diet-related health condition.

All funded GusNIP PPR projects are required to adhere to these eligibility criteria. Beyond these eligibility requirements, PPR projects can further define who can enroll in the PPR project. For example, many PPR projects also include screening positive for food insecurity as an indicator of risk for diet-related health conditions. These additional criteria are identified in the "Additional Enrollment Criteria" column of the table below. Flexibility to focus on specific health and nutrition concerns allows projects to address issues of the greatest concern in their communities (e.g., high blood pressure or diabetes).

Grantee	Grantee Type¹	Total Grant Amount and Duration	Additional Enrollment Criteria <sup>2</sup>	Intervention Duration	Site Type(s)³	Prescription Amount and Mechanism	State(s) Reached
Ascension Seton	НСО	\$483,612 3 years	Pregnant people	6 months	Clinic	Produce boxes; bi- weekly	TX
Brighter Bites	СВО	\$477,523 2 years	Children aged 3 – 18 years old	32 weeks	Clinic	Produce bags; bi-weekly	TX
Community Action Duluth	СВО	\$454,662 3 years		9 months	B&M, FD	\$80 gift card; monthly, for use at mobile market and farmers markets	MN
Cornell Cooperative Extension of Nassau County	СВО	\$483,589 3 years		6 months	FD	\$18 value CSA produce boxes; bi- weekly	NY

Grantee	Grantee Type¹	Total Grant Amount and Duration	Additional Enrollment Criteria <sup>2</sup>	Intervention Duration	Site Type(s)³	Prescription Amount and Mechanism	State(s) Reached
County of Los Angeles	GOV	\$483,612 3 years	Individuals with Type 2 or pre- diabetes diagnosis	6 months	B&M, Clinic	\$40 - \$110 electronic debit card; monthly, based on household size	CA
Elepaio Social Services	СВО	\$483,612 3 years		12 months	Clinic, FD	\$100 electronic card; monthly	н
Fairview Health Services	НСО	\$483,612 3 years	Somali/East African, Hmong and Hispanic/ Latino populations	24 weeks	Clinic, FD	CSA boxes; weekly	MN
Fund for Public Health in New York	СВО	\$479,785 3 years	Individuals with diabetes	12 months	Clinic, FD	\$100 - \$150 debit cards; monthly, based on household size	NY
Norton Sound Health Corp	НСО	\$483,612 3 years	Alaska Native populations	6 months	Clinic	Produce boxes; monthly	AK
Pacific Health Research and Education Institute	HCO	\$483,569 3 years	Female veterans	6 months	B&M	\$100 vouchers; monthly	НІ
Yukon Kuskokwim Health Corporation	HCO/ Tribal Agency	\$483,612 3 years	Individuals with diabetes	6 months	B&M, Clinic, FD	\$45 - \$90 vouchers or produce boxes; monthly	AK

<sup>&</sup>lt;sup>1</sup> Eligible entities for GusNIP NI and PPR projects are limited to governmental agencies and non-profits which are further classified as: CBO = community based organization or other non-profit; GOV = state or local government agency; HCO = healthcare organization; UNI = university or other higher education organization; Other

<sup>&</sup>lt;sup>2</sup> Additional enrollment criteria sourced from project summaries within USDA's Current Research Information System

<sup>&</sup>lt;sup>3</sup> Site types include: brick-and-mortar (B&M), clinic, and farm direct (FD)

#### 2023 GusNIP Grantees: Nutrition Incentive Projects (NI)

For GusNIP Nutrition Incentive projects, there are three allowable incentive models:

- Fruits and vegetables for fruits and vegetables: SNAP/NAP participants purchase fruits or vegetables using their SNAP/NAP benefits and then receive incentives that are redeemable only for the purchase of fruits or vegetables.
- 2. Any SNAP/NAP eligible food for fruits and vegetables: SNAP/NAP participants purchase any SNAP/NAP eligible food using their SNAP/NAP benefits and then receive incentives that are redeemable only for the purchase of fruits or vegetables.
- 3. Fruits and vegetables for any SNAP/NAP eligible food: SNAP/NAP participants purchase fruits or vegetables using their SNAP/NAP benefits and then receive incentives that are redeemable for the purchase of any SNAP/NAP eligible food.

All funded GusNIP NI projects must adhere to one or a combination of these three incentive models. Additional details about each project's incentive model are identified in the "Match Amount and Mechanism" column of the table below.

Grantee	Grantee Type <sup>1</sup>	Federal Grant Amount and Duration <sup>2</sup>	Site Type(s)³	Match Amount and Mechanism	State(s) Reached
GusNIP Large Scale Proje	cts				
Appalachian Sustainable Agriculture Project	СВО	\$1,091,135 3 years	B&M, FD	1:1 or 50% off; up to \$20 weekly; tokens, coupon (paper or digital), discount (paper or voucher)	NC
Community Farm Alliance	СВО	\$1,130,224 3 years	B&M, FD	1:1 or 50% off; variable daily caps; tokens, coupons (paper or digital)	KY
DC Central Kitchen	СВО	\$890,000 4 years	B&M	1:1; \$5 or more spent on fresh or frozen FV earns a \$5 coupon to spend on fresh or frozen F&V daily	DC
Fair Food Network	СВО	\$8,438,060 2 years	B&M, FD	1:1 or 50% off; up to \$20 daily; loyalty account, coupons (paper or digital), EBT card	MI
Field & Fork Network,	СВО	\$8,077,000 4 years	B&M, FD	1:1 or 50% off; coupons (paper), loyalty account, discount code	NY

Grantee	Grantee Type <sup>1</sup>	Federal Grant Amount and Duration <sup>2</sup>	Site Type(s)³	Match Amount and Mechanism	State(s) Reached
Local Environmental Agriculture Project	СВО	\$1,199,142 2 years	B&M, FD	1:1 or 50% off; variable frequency, variable caps; tokens, coupons (paper or digital)	VA
Nourish Colorado	СВО	\$2,455,439 2 years	B&M, FD	1:1 or 50% off; up to \$20; daily/ weekly; CSA share or produce box, voucher, coupon (paper or digital), tokens, EBT card	СО
The Experimental Station: 6100 Blackstone	СВО	\$2,074,323 2 years	B&M, FD	1:1 or 50% off; up to \$25; as needed; discount or paper voucher	IL
University of California San Diego	UNI	\$4,942,850 4 years	B&M	4:1; up to \$50; monthly; point-of-sale discount	CA
Washington State Department of Health	GOV	\$7,790,000 2 years	B&M, FD	1:1 or 50% off; daily; voucher, coupon (paper or digital)	WA
Wholesome Wave Georgia	СВО	\$994,613 3 years	B&M, FD	1:1 or 50% off; daily; tokens or point-of- sale discount	GA
GusNIP Standard Projects	8				
Fundacion MMM	СВО	\$500,000 2 years	B&M	1:1; \$50 spent on NAP items earns a \$50 F&V credit; point-of-sale credit	PR
Glynwood Center	СВО	\$499,840 3 years	FD	1:1 or 50% off; weekly; CSA box	NY
Inadvance	СВО	\$500,000 1 year	B&M	5:1; daily; point-of- sale-discount	CA

#### Appendix 5. Description of 2023 GusNIP Grantees

Grantee	Grantee Type <sup>1</sup>	Federal Grant Amount and Duration <sup>2</sup>	Site Type(s)³	Match Amount and Mechanism	State(s) Reached
Together We Can	СВО	\$500,000 2 years	B&M, FD	1:1 or 50% off; up to \$20 weekly; coupon (paper or digital)	NV
GusNIP Pilot Projects					
Banco de Alimentos Puerto Rico	СВО	\$100,000 1 year	FD	1:2; daily	PR
Bronxworks, Inc	СВО	\$100,000 2 years	FD	1:10; one-time incentive; paper coupon	NY
Star Farm Chicago	СВО	\$100,000 2 years	B&M, FD	1:1 or 50% off; daily/weekly; CSA bag or paper coupon	IL

<sup>&</sup>lt;sup>1</sup> Eligible entities for GusNIP NI and PPR projects are limited to governmental agencies and non-profits which are further classified as: CBO = community based organization or other non-profit; GOV = state or local government agency; HCO = healthcare organization; UNI = university or other higher education organization; Other.

<sup>&</sup>lt;sup>2</sup> Grant duration uses no cost extension date, where applicable.

<sup>&</sup>lt;sup>3</sup> Site types include: brick-and-mortar (B&M) and farm direct (FD).

### **Appendix 6.** Nutrition Incentive Results Tables

#### **Nutrition Incentive Site-Level Results Tables**

Table A1. Total Estimated Number of NI Participants in Y5 by Month and Award Mechanism

Month and Year	GusNIP Customers Served	GusCRR Customers Served	Total
September 2023	187,602	36,377	223,979
October 2023	175,864	39,977	215,841
November 2023	136,091	33,603	169,694
December 2023	121,199	33,385	154,584
January 2024	118,845	29,344	148,189
February 2024	119,663	29,391	149,054
March 2024	134,826	31,107	165,933
April 2024	117,464	32,571	150,036
May 2024	138,057	37,563	175,619
June 2024	164,142	37,792	201,934
July 2024	190,416	30,703	221,119
August 2024	205,046	25,829	230,875
Monthly Average	150,768	33,137	183,905

**Table A2.** SNAP Purchases/Products Eligible to Trigger Incentive Distribution by Site Type for NI Projects (2023-2024)<sup>1</sup>

Eligible SNAP Purchases/Products	B&M (n = 1,416)	FD (n = 2,296)	Total NI (N = 3,712)
All FVs (fresh, canned, frozen, dried, plants, and/or seeds) n (%)	316 (22.32%)	56 (2.44%)	372 (10.02%)
All SNAP Eligible Items n (%)	482 (34.04%)	1,849 (80.53%)	2,331 (62.80%)
Fresh FVs Only n (%)	512 (36.16%)	261 (11.37%)	773 (20.82%)
Only State or Regionally Grown FVs n (%)	106 (7.49%)	128 (5.57%)	234 (6.30%)
Other n (%)	0 (0%)	2 (0.09%)	2 (0.05%)

B&M = brick-and-mortar sites; FD = farm direct sites; FVs = fruits and vegetables; N = total number in sample; n = number in subsample; NI = nutrition incentive; SNAP = Supplemental Nutrition Assistance Program

<sup>&</sup>lt;sup>1</sup> Sites that did not report on SNAP purchases/products eligible to trigger incentives for incentive redemption (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages.

**Table A3.** Fruits and Vegetables (FVs) Eligible for Incentive Redemption by Site Type for NI Projects (2023-2024)<sup>1</sup>

Eligible FVs	B&M (n = 1,416)	FD (n = 2,296)	Total NI (N = 3,712)
Fresh FVs Only n (%)	624 (44.07%)	539 (23.48%)	1,163 (31.33%)
All FVs (fresh, canned, frozen, dried, plants, and/or seeds) n (%)	640 (45.20%)	662 (28.83%)	1,302 (35.08%)
Only State or Regionally Grown FVs n (%)	128 (9.04%)	943 (41.07%)	1,071 (28.85%)
Other n (%)	24 (1.69%)	152 (6.62%)	176 (4.74%)

B&M = brick-and-mortar sites; FD = farm direct sites; FVs = fruits and vegetables; N = total number in sample; n = number in subsample; NI = nutrition incentive

Table A4. Methods for Incentive Distribution/Redemption by Site Type for NI Projects (2023-2024)<sup>1</sup>

Eligible FVs	B&M (n = 1,416)	FD (n = 2,296)	Total NI (N = 3,712)
CSA Share or Produce Box n (%)	1 (0.07%)	66 (2.87%)	67 (1.80%)
Discount at Register n (%)	252 (17.80%)	302 (13.15%)	554 (14.92%)
EBT Card n (%)	19 (1.34%)	47 (2.05%)	66 (1.78%)
Loyalty Account <sup>2</sup> n (%)	598 (42.23%)	70 (3.05%)	668 (18.00%)
Paper Voucher or Coupon n (%)	549 (38.77%)	1,050 (45.73%)	1,599 (43.08%)
Token n (%)	4 (0.28%)	862 (37.54%)	866 (23.33%)
Other n (%)	2 (0.14%)	1 (0.04%)	3 (0.08%)

B&M = brick-and-mortar sites; EBT = electronic benefit transfer; FD = farm direct sites; N = total number in sample; n = number in subsample; NI = nutrition incentive

<sup>&</sup>lt;sup>1</sup> Sites that did not report on FVs eligible for incentives (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages.

<sup>&</sup>lt;sup>1</sup> Sites that did not report on methods for incentive redemption (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for methods for incentive redemption so the rows in each column may not add up to the number of sites (n) and the percentages may add to more than 100%.

<sup>&</sup>lt;sup>2</sup> Loyalty account includes sites with online loyalty accounts, loyalty cards, and/or ID-based loyalty accounts.

Table A5. Annual Incentive Distribution and Redemption by Site Type for NI Projects (2023-2024)<sup>1</sup>

Incentive Distribution and Redemption	GusNIP NI (n = 3,056)	GusCRR NI (n = 1,220)	B&M (n = 1,653)	FD (n = 2,328)	All Sites (N = 3,981)
Annual Incentives Distributed					
Total	\$62,992,061.88	\$13,695,130.91	\$53,286,023.81	\$23,401,168.98	\$76,687,192.79
Mean <sup>2</sup>	\$21,117.02	\$19,074.00	\$48,397.84	\$10,121.61	\$20,720.67
Annual Incentives Redeemed					
Total	\$39,421,247.34	\$8,185,683.09	\$26,414,560.06	\$21,192,370.37	\$47,606,930.43
Mean <sup>2</sup>	\$13,827.16	\$6,720.59	\$16,018.53	\$9,968.19	\$11,699.91
<b>Annual Redemption Rate</b>					
Total <sup>3</sup>	62.58%	59.77%	49.57%	90.56%	62.08%

B&M = brick-and-mortar sites; FD = farm direct sites; GusNIP NI = NI awards through GusNIP; GusCRR NI = NI awards through COVID Relief and Response; N = total number in sample; n = number in subsample; NI = nutrition incentive

**Table A6.** Nutrition Education Activities Offered by Site Type Among NI Projects that Offered Any Nutrition Education (2023-2024)<sup>1</sup>

Nutrition Education Activities	B&M (n = 351)	FD (n = 1,336)	Total NI (N =1,690)
1:1 or Small Group Nutrition Education n (%)	56 (15.91%)	76 (5.68%)	132 (7.81%)
Partnering Nutrition Education <sup>2</sup> n (%)	74 (21.02%)	448 (33.48%)	522 (30.89%)
Cooking Demonstrations n (%)	327 (92.90%)	1,192 (89.09%)	1,519 (89.88%)
Food Navigation or Tours n (%)	28 (7.95%)	313 (23.39%)	341 (20.18%)
E-interventions n (%)	40 (11.36%)	88 (6.58%)	128 (7.57%)
Other³ n (%)	7 (1.99%)	69 (5.16%)	76 (4.50%)

B&M = brick-and-mortar sites; FD = farm direct sites; N = total number in sample; n = number in subsample; NI = nutrition incentive

<sup>&</sup>lt;sup>1</sup> Number of sites (n) in each column header represents the number of active sites in each category and includes sites with missing data for each metric. Many sites operate using both GusNIP and GusCRR funding. In addition, some sites operate multiple projects and multiple project types (e.g., NI and PPR projects). Thus, there is overlap in the counts of sites attributed to distinct funding sources.

<sup>&</sup>lt;sup>2</sup> Means were calculated by dividing the total dollar value of incentives distributed or redeemed by the number of sites with data for that metric. Sites with missing data were excluded from the calculation.

<sup>&</sup>lt;sup>3</sup> Total annual redemption rate is calculated as the total annual incentives redeemed divided by the total annual incentives distributed in each column and is represented as a percentage.

<sup>&</sup>lt;sup>1</sup> Sites that did not report on nutrition education offered (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for nutrition education activities so the rows in each column will not add up to the number of sites (n).

<sup>&</sup>lt;sup>2</sup> Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) offer educational programming.

<sup>&</sup>lt;sup>3</sup> Other responses included: gardening education, children specific programming, nutrition education including physical activity, canning and preserving, health fairs/booths, agriculture-related education, etc.

**Table A7.** Support Services Offered by Site Type Among NI Projects that Offered Any Support Service (2023-2024)<sup>1</sup>

Support Services	B&M (n = 354)	FD (n = 706)	Total NI (N = 1,060)
Resource Referrals n (%)	57 (16.10%)	475 (67.28%)	532 (50.19%)
Produce Delivery n (%)	227 (64.12%)	68 (9.63%)	295 (27.83%)
Transportation n (%)	17 (4.80%)	34 (4.82%)	51 (4.81%)
Shopping Assistance n (%)	195 (55.08%)	181 (25.64%)	376 (35.47%)
Health Fairs and Other Community Building Activities n (%)	1 (0.28%)	75 (10.62%)	76 (7.17%)
Voter Registration and Other Civic Engagement n (%)	7 (1.98%)	93 (13.17%)	100 (9.43%)
COVID Testing or Vaccination n (%)	57 (16.10%)	22 (3.12%)	79 (7.45%)
Other² n (%)	36 (10.17%)	63 (8.92%)	99 (9.34%)

B&M = brick-and-mortar sites; COVID = coronavirus disease 2019; FD = farm direct sites; N = total number in sample; n = number in subsample; NI = nutrition incentive

<sup>&</sup>lt;sup>1</sup> Sites that did not report on support services offered (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for support services so the rows in each column will not add up to the number of sites (n).

<sup>&</sup>lt;sup>2</sup> Other responses included: promotion of other programs, skill building (e.g., computer classes), behavioral health screenings, etc.

**Table A8.** Marketing Activities Offered by Site Type Among NI Projects that Conducted Any Marketing Activities (2023-2024)<sup>1</sup>

Marketing Activities	B&M (n = 1,094)	FD (n = 2,243)	Total NI (N = 3,337)
On-site Signage or Announcements n (%)	1,037 (94.79%)	1,733 (77.26%)	2,770 (83.01%)
Direct Promotions Distributed by Direct Mail, Email, Phone n (%)	685 (62.61%)	1,534 (68.39%)	2,219 (66.50%)
Public Promotions n (%)	436 (39.85%)	701 (31.25%)	1,137 (34.07%)
Multilingual Promotions n (%)	352 (32.18%)	815 (36.34%)	1,167 (34.97%)
Directories n (%)	40 (3.66%)	310 (13.82%)	350 (10.49%)
Online Advertisements n (%)	523 (47.81%)	1,385 (61.75%)	1,908 (57.18%)
Other <sup>2</sup> n (%)	22 (2.01%)	58 (2.59%)	80 (2.40%)

B&M = brick-and-mortar sites; FD = farm direct sites; N = total number in sample; n = number in subsample; NI = nutrition incentive

<sup>&</sup>lt;sup>1</sup> Sites that did not report on project marketing activities (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for marketing services so the rows in each column will not add up to the number of sites (n).

<sup>&</sup>lt;sup>2</sup> Other responses included: special events, promotion with partnering agencies (e.g., senior's center, food banks, neighborhood associations), etc.

#### **Nutrition Incentive Site-Level Results Tables**

Table A9. Sociodemographic Characteristics of NI Project Participants (N = 9,778) by Site Type (2023-2024)<sup>1</sup>

Sociodemographic Characteristics	Brick-and-Mortar (n = 4,170)	Farm Direct (n = 4,114)	Uncategorized <sup>2</sup> (n = 1,494)	Overall (N = 9,778)
Age (Years)				
Participants Reporting Age (n)	3,626	3,777	1,282	8,685
Mean (SD)	45.10 (15.31)	47.59 (16.60)	47.42 (16.35)	46.53 (16.08)
Age Group (Years) n (%)				
18 to 24	322 (8.40%)	176 (4.42%)	72 (5.12%)	570 (6.18%)
25 to 34	707 (18.44%)	840 (21.11%)	268 (19.06%)	1,815 (19.69%)
35 to 44	890 (23.21%)	877 (22.04%)	290 (20.63%)	2,057 (22.31%)
45 to 64	1,248 (32.54%)	1,113 (27.97%)	395 (28.09%)	2,756 (29.89%)
65 and over	459 (11.97%)	771 (19.38%)	257 (18.28%)	1,487 (16.13%)
Prefer Not to Answer	209 (5.45%)	202 (5.08%)	124 (8.82%)	535 (5.80%)
Missing <sup>3</sup>	335	135	88	558
Sex n (%)				
Female	2,910 (77.19%)	3,003 (77.36%)	977 (68.75%)	6,890 (76.07%)
Male	729 (19.34%)	763 (19.65%)	364 (25.62%)	1,856 (20.49%)
Prefer Not to Answer	131 (3.47%)	116 (2.99%)	65 (4.57%)	312 (3.44%)
Missing	400	232	88	720
Race n (%)				
American Indian or Alaskan Native	62 (1.61%)	96 (2.40%)	22 (1.55%)	180 (1.94%)
Asian	274 (7.11%)	217 (5.44%)	44 (3.10%)	535 (5.77%)
Black or African American	1,134 (29.41%)	697 (17.46%)	208 (14.64%)	2,039 (22.00%)
More Than One Race	289 (7.49%)	334 (8.37%)	104 (7.32%)	727 (7.84%)
Native Hawaiian	73 (1.89%)	21 (0.53%)	8 (0.56%)	102 (1.10%)
Other	26 (0.67%)	31 (0.78%)	3 (0.21%)	60 (0.65%)
Other Pacific Islander	27 (0.70%)	9 (0.23%)	10 (0.70%)	46 (0.50%)
White	1,479 (38.36%)	2,151 (53.88%)	730 (51.37%)	4,360 (47.04%)
Don't Know/Not Sure	150 (3.89%)	76 (1.90%)	53 (3.73%)	279 (3.01%)
Prefer Not to Answer	342 (8.87%)	360 (9.02%)	239 (16.82%)	941 (10.15%)
Missing	314	122	73	509
Ethnicity n (%)				
Hispanic/Latino	677 (17.57%)	732 (18.12%)	482 (33.90%)	1,891 (20.30%)
Non-Hispanic/Latino	3,006 (78.00%)	3,102 (76.80%)	835 (58.72%)	6,943 (74.54%)
Prefer Not to Answer	171 (4.44%)	205 (5.08%)	105 (7.38%)	481 (5.16%)
Missing	316	75	72	463

#### **Nutrition Incentive Site-Level Results Tables**

Sociodemographic Characteristics	Brick-and-Mortar (n = 4,170)	Farm Direct (n = 4,114)	Uncategorized <sup>2</sup> (n = 1,494)	Overall (N = 9,778)
Region <sup>4</sup> n (%)				
Northeast	464 (11.13%)	873 (21.22%)	623 (41.70%)	1,960 (20.04%)
North Central	426 (10.22%)	1,129 (27.44%)	519 (34.74%)	2,074 (21.21%)
Southern	1,553 (37.24%)	761 (18.50%)	103 (6.89%)	2,417 (24.72%)
Western	1,727 (41.41%)	1,351 (32.84%)	249 (16.67%)	3,327 (34.03%)
<b>Total</b> ⁵ n (%) <sup>6</sup>	4,170 (42.65%)	4,114 (42.07%)	1,494 (15.28%)	9,778

N = total number in sample; n = number in subsample; NI = nutrition incentive

**Table A10.** Frequency and Percentage of Food Security Status Among NI Project Participants (N = 5,269) by Sociodemographic Characteristics (2023-2024)<sup>1,2,3</sup>

Sociodemographic Characteristics	Food Secure (n = 2,208)	Food Insecure (n = 3,061)
Age (Years)		
Mean (SD)	46.63 (13.70)	45.95 (11.69)
Age Group (Years) n (%)		
18 to 24	143 (46.29%)	166 (53.71%)
25 to 34	454 (42.25%)	620 (57.75%)
35 to 44	449 (38.02%)	733 (61.98%)
45 to 64	551 (37.06%)	936 (62.94%)
65 and over	404 (48.14%)	435 (51.86%)
Prefer Not to Answer	145 (52.75%)	130 (47.25%)
Missing	95	84
Sex n (%)		
Female	1,613 (41.56%)	2,269 (58.44%)
Male	444 (42.18%)	609 (57.82%)
Prefer Not to Answer	81 (51.42%)	76 (48.58%)
Missing	120	219

<sup>&</sup>lt;sup>1</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. JAMA. 2021;326(7):621–627.

<sup>&</sup>lt;sup>2</sup> Participants were considered "uncategorized" if they did not specify a type of site attached to the location where they took the survey. Many participants completed the survey online, so identifying a site location where the survey occurred was not feasible.

<sup>&</sup>lt;sup>3</sup> Missing values for age group, sex, ethnicity, and race are not included in percentage calculations.

<sup>&</sup>lt;sup>4</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

<sup>&</sup>lt;sup>5</sup> Total displayed as row percentage. In other words, of the total sample, 42.65% of participants can be attributed to brick-and-mortar sites, 42.07% to farm direct sites, and 15.28% were uncategorized.

<sup>&</sup>lt;sup>6</sup> N (%) values in the table are weighted based on the number of survey responses provided by grantee over expected. Missing counts represent the actual number of survey responses with missing values. As such, the missing counts and total Ns may not add up to the total number of surveys.

#### Appendix 6. Nutrition Incentive Results Tables

Sociodemographic Characteristics	Food Secure (n = 2,208)	Food Insecure (n = 3,061)
Race n (%)		
American Indian or Alaskan Native	25 (26.48%)	70 (73.52%)
Asian	151 (48.48%)	160 (51.52%)
Black or African American	450 (39.87%)	678 (60.13%)
More Than One Race	170 (38.01%)	277 (61.99%)
Native Hawaiian	12 (22.54%)	42 (77.46%)
Other	19 (44.65%)	23 (55.35%)
Other Pacific Islander	7 (29.53%)	16 (70.47%)
White	1,074 (43.71%)	1,383 (56.29%)
Don't Know/Not Sure	57 (34.13%)	111 (65.87%)
Prefer Not to Answer	208 (45.56%)	249 (54.44%)
Missing	53	88
Ethnicity n (%)		
Hispanic/Latino	372 (36.54%)	646 (63.46%)
Non-Hispanic/Latino	1,720 (43.16%)	2,264 (56.84%)
Prefer Not to Answer	98 (43.76%)	126 (56.24%)
Missing	34	60
Region⁴ n (%)		
North Central	622 (40.41%)	917 (59.59%)
Northeast	536 (53.66%)	463 (46.34%)
Southern	355 (32.62%)	733 (67.38%)
Western	696 (42.30%)	949 (57.70%)
Total <sup>5</sup> n (%)	2,208 (41.90%)	3,061 (58.10%)

N = total number in sample; n = number in subsample; NI = nutrition incentive

<sup>&</sup>lt;sup>1</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. JAMA. 2021;326(7):621–627.

<sup>&</sup>lt;sup>2</sup> Table displays row percentages (age group, sex ethnicity, race, region, and total sample). Example: Of participants aged 18 to 24, 46.29% were food secure and 53.71% were food insecure. Missing values for age group, sex, ethnicity, and race are not included in percentage calculations.

<sup>&</sup>lt;sup>3</sup> Distributions in this table are weighted which will cause the counts to not be whole numbers. Therefore, weighted data were rounded to whole numbers for appearance. See "How Did We Analyze the Impact of NI Participation?" in the main report for an explanation of how weighting was applied to this table.

<sup>&</sup>lt;sup>4</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

<sup>&</sup>lt;sup>5</sup> NI participants without enough data to compute food insecurity are not included in this table.

**Table A11.** Daily FVs Cup Equivalents Among NI Participants (N = 8,130) Across Sociodemographic Characteristics (2023-2024)<sup>1</sup>

Sociodemographic Characteristics	Fruits and Vegetables <sup>1</sup> (n = 7,892)	Fruits Only (n = 8,130)	Vegetables <sup>2</sup> Only (n = 7,969)	
Age Group (Years) Mean (SD)		( ), ; ; ,	,,,,,,	
18 to 24	2.45 (0.64)	1.07 (0.52)	1.43 (0.33)	
25 to 34	2.64 (0.68)	1.15 (0.50)	1.53 (0.36)	
35 to 44	2.67 (0.69)	1.10 (0.45)	1.61 (0.40)	
45 to 64	2.71 (0.68)	1.07 (0.41)	1.64 (0.40)	
65 and over	2.66 (0.60)	0.99 (0.32)	1.64 (0.39)	
Sex Mean (SD)				
Female	2.59 (0.63)	1.07 (0.42)	1.54 (0.35)	
Male	2.92 (0.78)	1.10 (0.49)	1.82 (0.47)	
Race Mean (SD)				
American Indian or Alaskan Native	2.65 (0.70)	1.10 (0.44)	1.58 (0.38)	
Asian	2.63 (0.69)	1.03 (0.42)	1.59 (0.40)	
Black or African American	2.62 (0.69)	1.12 (0.52)	1.54 (0.38)	
More Than One Race	2.76 (0.71)	1.12 (0.47)	1.66 (0.42)	
Native Hawaiian	2.58 (0.59)	1.07 (0.44)	1.57 (0.33)	
Other	2.60 (0.56)	1.06 (0.41)	1.58 (0.33)	
Other Pacific Islander	2.56 (0.67)	1.20 (0.62)	1.58 (0.38)	
White	2.67 (0.66)	1.06 (0.39)	1.61 (0.39)	
Don't Know/Not Sure	2.67 (0.59)	1.04 (0.38)	1.67 (0.36)	
Prefer Not to Answer	2.69 (0.68)	1.08 (0.41)	1.62 (0.40)	
Ethnicity Mean (SD)				
Hispanic/Latino	2.62 (0.64)	1.05 (0.42)	1.60 (0.36)	
Non-Hispanic/Latino	2.67 (0.68)	1.09 (0.44)	1.60 (0.40)	
Prefer Not to Answer	2.63 (0.66)	1.05 (0.42)	1.57 (0.33)	
Region <sup>3</sup> Mean (SD)				
North Central	2.69 (0.80)	1.09 (0.54)	1.62 (0.45)	
Northeast	2.63 (0.61)	1.05 (0.37)	1.58 (0.36)	
Southern	2.56 (0.65)	1.08 (0.45)	1.52 (0.35)	
Western	2.73 (0.63)	1.09 (0.38)	1.64 (0.38)	
Total Mean (SD)	2.65 (0.87)	1.07 (0.57)	1.59 (0.51)	

N = total number in sample; n = number in subsample; NI = nutrition incentive; FVs = fruits and vegetables

<sup>&</sup>lt;sup>1</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. *JAMA*. 2021;326(7):621–627.

<sup>&</sup>lt;sup>2</sup> Vegetables calculated with legumes and without french fries.

<sup>&</sup>lt;sup>3</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

**Table A12.** Perceived Health Status Among NI Project Participants (N = 5,664) by Program Participation Length (2023-2024)<sup>1,2</sup>

Perceived Health Status n (%)	First-time Participants (n = 1,946)	< 6 Months Participation (n = 2,884)	≥ 6 Months Participation (n = 834)	Overall NI (N = 5,664)
Poor	108 (5.82%)	186 (6.54%)	51 (6.45%)	346 (6.28%)
Fair	637 (34.23%)	853 (30.01%)	215 (26.96%)	1,705 (30.99%)
Good	701 (37.69%)	1,081 (38.02%)	299 (37.52%)	2,081 (37.84%)
Very Good	260 (13.98%)	489 (17.18%)	147 (18.44%)	895 (16.28%)
Excellent	123 (6.59%)	194 (6.82%)	65 (8.15%)	381 (6.93%)
Don't Know/Prefer Not to Answer	31 (1.69%)	41 (1.43%)	20 (2.48%)	92 (1.67%)
Missing <sup>3</sup>	313	71	69	453
Total <sup>4</sup> n (%)	1,946 (34.36%)	2,884 (50.91%)	834 (14.73%)	5,664

N = total number in sample; n = number in subsample; NI = nutrition incentive

Table A13. Program Satisfaction Among NI Project Participants (N = 5,664) by Site Type (2023-2024)<sup>1</sup>

Program Satisfaction n (%)	Brick-and-Mortar (n = 1,946)	Farm Direct (n = 2,884)	Uncategorized (n = 834)	Overall (N = 5,664)
Very Negative	21 (1.08%)	12 (0.43%)	7 (0.89%)	40 (0.72%)
Negative	26 (1.35%)	14 (0.50%)	11 (1.34%)	51 (0.92%)
Neutral	151 (7.92%)	93 (3.28%)	57 (7.01%)	302 (5.42%)
Positive	545 (28.53%)	576 (20.34%)	196 (23.96%)	1317 (23.68%)
Very Positive	1040 (54.40%)	2064 (72.84%)	431 (52.79%)	3535 (63.56%)
Don't Know/Prefer Not to Answer	128 (6.72%)	74 (2.61%)	114 (14.00%)	317 (5.70%)
Missing <sup>2</sup>	48	82	29	159
Total <sup>3</sup> n (%)	1946 (34.36%)	2884 (50.91%)	834 (14.73%)	5,664

N = total number in sample; n = number in subsample; NI = nutrition incentive

<sup>&</sup>lt;sup>1</sup> Distributions in this table are weighted which will cause the counts to not be whole numbers. Therefore, weighted data were rounded to whole numbers for appearance. See "How Did We Analyze the Impact of NI Participation?" in the main report for an explanation of how weighting was applied to this table.

<sup>&</sup>lt;sup>2</sup> n (%) values in the table are weighted based on the number of survey responses provided by grantee over expected. Missing counts represent the actual number of survey responses with missing values. As such the missing counts and total Ns may not add up to the total number of surveys.

<sup>&</sup>lt;sup>3</sup> Missing values for perceived health status are not included in percentage calculations.

<sup>&</sup>lt;sup>4</sup> Total displayed as row percentage for duration. Example: Of the total sample, 34.36% were first-time participants, 50.91% participated for less than 6 months, and 14.73% participated for 6 months or more.

<sup>&</sup>lt;sup>1</sup> Distributions in this table are weighted which will cause the counts to not be whole numbers. Therefore, weighted data were rounded to whole numbers for appearance. See "How Did We Analyze the Impact of NI Participation?" in the main report for an explanation of how weighting was applied to this table.

<sup>&</sup>lt;sup>2</sup> Missing values for program satisfaction are not included in percentage calculations.

<sup>&</sup>lt;sup>3</sup> Total displayed as row percentage for site type. Example: Of the total sample, 34.36% were brick-and-mortar participants, 50.91% were farm direct participants, and 14.73% were uncategorized.

# **Appendix 7.** Core Measures Terms, Definitions, and Examples

Definitions and Examples of Incentive Distribution/Redemption Methods

Incentive Distribution/ Redemption Methods	Definitions and Examples
Token	The incentive is a physical item typically provided in farmers market settings when an NI participant swipes their EBT card or a PPR participant presents their prescription at a central location.
Paper vouchers or coupons	The incentive or prescription is printed on a receipt or other paper mechanism and is available for the participant to use on subsequent shopping trips; essentially a rebate.
Loyalty account	The incentive or prescription is integrated into a site's loyalty program through a physical card or unique account number. Some loyalty accounts are associated with a grocery store or chain of grocery stores while some operate independently.
Discount at the register	The incentive or prescription is an automatic discount provided at the point of sale.
EBT cards	The incentive is integrated into an NI participant's EBT card. EBT integration is an emerging technology among NI projects.
CSA share or produce box	The incentive or prescription is given to NI/PPR participants as a weekly or monthly CSA share or produce box.

Definitions and Examples of Eligible Products for Earning and Redeeming Incentives<sup>1</sup>

Eligible Products	Definitions and Examples
All SNAP-eligible items	An incentive model where participants can earn incentives on any SNAP-eligible item (typically in FD settings), not just FVs.
Fresh FVs only	An incentive model where participants can earn/redeem incentives or prescriptions on the purchase of fresh FVs only.
All FVs (fresh, canned, frozen, dried, plants, and/or seeds)	An incentive model where participants can earn/redeem incentives on the purchase of any FV, which may include canned, dried, or frozen FVs without added sugars, fats, oils, or salt/sodium.
Only State or Regionally Grown FVs	An incentive model where participants can earn/redeem incentives or prescriptions on FVs that are grown locally or regionally.

<sup>&</sup>lt;sup>1</sup> For GusNIP Nutrition Incentive projects, there are three allowable incentive models: 1.) Fruits and vegetables for fruits and vegetables: SNAP/NAP participants purchase fruits or vegetables using their SNAP/NAP benefits and then receive incentives that are redeemable only for the purchase of fruits or vegetables, 2.) Any SNAP/NAP eligible food for fruits and vegetables: SNAP/NAP participants purchase any SNAP/NAP eligible food using their SNAP/NAP benefits and then receive incentives that are redeemable only for the purchase of fruits or vegetables, 3.) Fruits and vegetables for any SNAP/NAP eligible food: SNAP/NAP participants purchase fruits or vegetables using their SNAP/NAP benefits and then receive incentives that are redeemable for the purchase of any SNAP/NAP eligible food.

Definitions and Examples of Nutrition Education, Support Services, and Marketing Activities

Nutrition Education Activities	Definitions and Examples
1:1 or small group nutrition education	Formalized programs like the Diabetes Prevention Program (DPP) or RD consultation that occur individually or in small group settings.
Partnering nutrition education	Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) that offer educational programming.
Cooking demonstrations	Food demonstrations, taste testing, and recipe sharing.
Food navigation/tours	Tours for participants in and around the food outlet to demonstrate how to use the program onsite.
E-interventions	Virtual classes and electronic delivery of nutrition education materials.
Other	Education programming that does not fit into the categories above.

Support Services	Definitions and Examples
Resource referrals	Activities that help participants access other needed resources such as emergency food or housing.
Health fairs and other community building	Activities that support health (e.g., physical activity, flu shots) and social support among participants and the community (e.g., health fairs, volunteer training).
Produce delivery and transportation services	Activities that either deliver the produce to participants or provide transportation to program locations.
Voter registration and other civic engagement	Activities that support civic engagement in the community such as voter registration.
COVID testing/vaccination	Onsite COVID testing and/or vaccinations.

Marketing Promotions	Definitions and Examples
On-site signage or announcements	All forms of signage (e.g., flyer, banner) or announcements (e.g., intercom) at the site locations.
Direct advertising distributed by direct mail, email, phone	Materials that are distributed by direct mail, email, or phone.
Public promotions	Radio or TV advertisements, outdoor advertisements (e.g., billboard, transit), and public events.
Multilingual promotions	Promotions of any type that were translated into languages other than English.
Online advertisements	Advertisements posted online and/or mobile apps as well as search engine optimization efforts.
Directories	List of resources available in the community.

# Appendix 8. USDA NIFA Regions

#### **NORTH CENTRAL**

- lowa
- Indiana
- Illinois
- Kansas
- · Michigan
- Missouri
- Minnesota
- · North Dakota
- Nebraska
- Ohio
- South Dakota
- Wisconsin

## SOUTH

- Alabama
- Arkansas
- Florida
- Georgia
- Kentucky
- Louisiana
- Mississippi
- North Carolina
- Oklahoma
- · Puerto Rico
- South Carolina
- Tennessee
- Texas
- · U.S. Virgin Islands
- Virginia



## **NORTHEAST**

- Connecticut
- · District of Columbia
- Delaware
- Maine
- Maryland
- Massachusetts
- New Hampshire
- New Jersey
- New York
- Pennsylvania
- · Rhode Island
- Vermont
- · West Virginia







## **WEST**

- Alaska
- · American Samoa
- Arizona
- California
- Colorado
- Federated States of Micronesia
- Guam
- Hawaii
- Idaho
- Montana
- New Mexico
- Nevada
- Northern Mariana Islands
- Oregon
- Utah
- Washington
- Wyoming





# **Appendix 9.** Produce Prescription Results Tables

Produce Prescription Site-Level Results Tables

Table B1. Methods for Prescription Distribution by Site Type for PPR Projects (2023-2024)<sup>1</sup>

Methods	B&M (n = 17)	FD (n = 50)	Clinics (n = 212)	Total PPR (N = 279)
CSA Share or Produce Box n (%)	8 (47.06%)	17 (34.00%)	28 (13.21%)	53 (19.00%)
Benefit/Debit Card n (%)	3 (17.65%)	1 (2.00%)	51 (24.10%)	55 (19.71%)
Discount at Register n (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Loyalty Account <sup>2</sup> n (%)	4 (23.53%)	1 (2.00%)	17 (8.02%)	22 (7.89%)
Paper Voucher or Coupon n (%)	2 (11.76%)	1 (2.00%)	117 (55.19%)	120 (43.01%)
Token n (%)	0 (0%)	30 (60.00%)	24 (11.32%)	54 (19.35%)
Other n (%)	1 (5.88%)	0 (0%)	19 (8.96%)	20 (7.17%)

B&M = brick-and-mortar sites; CSA = community supported agriculture; FD = farm direct sites; N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Sites that did not report on financial instruments for incentive distribution (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for financial instruments for incentive redemption so the rows in each column may not add up to the number of sites (n) and the percentages may add to more than 100%.

<sup>&</sup>lt;sup>2</sup> Loyalty account includes sites with online loyalty accounts, loyalty cards, and/or ID-based loyalty accounts.

**Table B2.** Fruits and Vegetables (FVs) Eligible for Prescription Redemption by Site Type for PPR Projects (2023-2024)<sup>1</sup>

Eligible FVs	B&M (n = 983)	FD (n = 219)	Clinics (n = 13)	Total PPR (N = 1,215)
Fresh FVs Only n (%)	793 (80.67%)	112 (50.91%)	9 (69.23%)	914 (75.16%)
All FVs (fresh, canned, frozen, dried, plants, and/or seeds) <sup>2</sup> n (%)	153 (15.56%)	27 (12.27%)	0 (0%)	180 (14.80%)
Only State or Regionally Grown FVs n (%)	11 (1.12%)	68 (30.91%)	2 (15.38%)	81 (6.66%)
Only State or Regionally Grown FVs n (%)	26 (2.64%)	12 (5.45%)	2 (15.38%)	40 (3.29%)

B&M = brick-and-mortar sites; FD = farm direct sites; FVs = fruits and vegetables; N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Sites that did not report on FVs eligible for incentives (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages.

<sup>&</sup>lt;sup>2</sup> NIFA accepts justifications for broadening the range of fresh FV prescribed to emphasize culturally sensitive foods and food practices, as well as in cases where food supply and food system disruptions may hinder access to fresh fruits and vegetables.

Table B3. Annual Incentive Distribution and Redemption by Site Type for PPR Projects (2023-2024)1

Incentive Distribution and Redemption	GusNIP PPR (n = 470)	GusCRR PPR (n = 813)	ARPA PPR (n = 793)	B&M (n = 1,247)	FD (n = 238)	Clinics (n = 350)	All Sites (N = 1,835)
Annual Incentives Distributed							
Total	\$2,628,435.74	\$1,472,494.13	\$4,606,613.88	\$1,117,550.78	\$1,603,880.16	\$5,986,112.81	\$8,707,543.75
Mean <sup>2</sup>	\$25,032.72	\$22,653.76	\$21,729.31	\$30,204.08	\$22,912.57	\$22,935.30	\$22,794.62
Annual Incentives Distributed							
Total	\$1,754,972.10	\$1,345,790.37	\$3,654,370.51	\$2,533,248.68	\$2,735,541.69	\$1,486,342.61	\$6,755,132.98
Mean <sup>2</sup>	\$4,618.35	\$1,808.86	\$6,856.23	\$2,239.83	\$11,893.66	\$19,817.90	\$4,076.72
Annual Incentives Distributed							
Total <sup>3</sup>	66.77%	91.40%	79.33%	226.68%	170.56%	24.83%	77.58%

B&M = brick-and-mortar sites; FD = farm direct sites; GusNIP PPR = PPR awards through GusNIP; GusNIP CRR = PPR awards through COVID Relief and Response; N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Number of sites (n) in each column header represents the number of active sites in each category and includes sites with missing data for each metric. Many sites operate using both GusNIP and GusCRR funding. In addition, some sites operate multiple projects and multiple project types (e.g., NI and PPR projects). Thus, there is overlap in the counts of sites attributed to distinct funding sources.

<sup>&</sup>lt;sup>2</sup> Means were calculated by dividing the total dollar value of incentives distributed or redeemed by the number of sites with data for that metric. Sites with missing data were excluded from the calculation.

<sup>&</sup>lt;sup>3</sup> Total annual redemption rate is the total annual incentives redeemed divided by the total annual incentives distributed in each column and is represented as a percentage.

**Table B4.** Nutrition Education Activities Offered by Site Type Among PPR Projects that Offered Any Nutrition Education (2023-2024)<sup>1</sup>

Nutrition Education Activities	B&M (n = 84)	FD (n = 144)	Clinics (n = 197)	Total PPR (N = 425)
1:1 or Small Group Nutrition Education n (%)	8 (9.52%)	5 (3.45%)	148 (75.13%)	161 (37.79%)
Partnering Nutrition Education <sup>2</sup> n (%)	30 (35.71%)	34 (23.45%)	52 (26.40%)	116 (27.23%)
Cooking Demonstrations n (%)	82 (97.62%)	122 (84.14%)	171 (86.80%)	375 (88.03%)
Food Navigation or Tours n (%)	13 (15.48%)	35 (24.14%)	3 (1.52%)	51 (11.97%)
E-interventions n (%)	15 (17.86%)	14 (9.66%)	95 (48.22%)	124 (29.11%)
Other³ n (%)	0 (0%)	0 (0%)	3 (1.52%)	3 (0.70%)

B&M = brick-and-mortar sites; FD = farm direct sites; N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Sites that did not report on nutrition education (i.e., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for nutrition education activities so the rows in each column will not add up to the number of sites (n).

<sup>&</sup>lt;sup>2</sup> Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) offer educational programming.

<sup>&</sup>lt;sup>3</sup> Other responses included: gardening education, children-specific programming, nutrition education including physical activity, canning and preserving, health fairs/booths, agriculture-related education, etc.

**Table B5.** Support Services Offered by Site Type Among PPR Projects that Offered Any Support Services (2023-2024)<sup>1</sup>

Support Services	B&M (n = 186)	FD (n = 86)	Clinics (n = 191)	Total PPR (N = 463)
Resource Referrals n (%)	50 (26.88%)	59 (68.60%)	174 (91.10%)	283 (61.12%)
Produce Delivery n (%)	32 (17.20%)	15 (17.44%)	31 (16.23%)	78 (16.85%)
Transportation n (%)	3 (1.61%)	3 (3.49%)	57 (29.84%)	63 (13.61%)
Shopping Assistance n (%)	50 (26.88%)	20 (23.26%)	14 (7.33%)	84 (18.14%)
Health Fairs and Other Community Building Activities n (%)	3 (1.61%)	6 (6.98%)	35 (18.32%)	44 (9.50%)
Voter Registration and Other Civic Engagement n (%)	3 (1.61%)	27 (31.40%)	9 (4.71%)	39 (8.42%)
COVID Testing or Vaccination n (%)	123 (66.13%)	3 (3.49%)	125 (65.45%)	251 (54.21%)
Other <sup>2</sup> n (%)	26 (13.98%)	2 (2.33%)	5 (2.62%)	33 (7.13%)

B&M = brick-and-mortar sites; COVID = coronavirus disease of 2019; FD = farm direct sites; N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Sites that did not report on support services (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for auxiliary services so the rows in each column will not add up to the number of sites (n).

<sup>&</sup>lt;sup>2</sup> Other responses included: promotion of other programs, skill building (e.g., computer classes), behavioral health screenings, etc.

**Table B6.** Marketing Activities Offered by Site Type Among PPR Projects that Conducted Any Marketing Activities (2023-2024)<sup>1</sup>

Support Services	B&M (n = 92)	FD (n = 155)	Clinics (n = 179)	Total PPR (N = 426)
On-site Signage or Announcements n (%)	77 (83.70%)	96 (61.94%)	127 (70.56%)	300 (70.26%)
Direct Promotions Distributed by Direct Mail, Email, Phone n (%)	28 (30.43%)	79 (50.97%)	125 (69.44%)	232 (54.33%)
Public Promotions n (%)	6 (6.52%)	9 (5.81%)	15 (8.33%)	30 (7.03%)
Multi-lingual Promotions n (%)	6 (6.52%)	17 (10.97%)	47 (26.11%)	70 (16.39%)
Directories n (%)	1 (1.09%)	0 (0%)	2 (1.11%)	3 (0.70%)
Online Advertisements n (%)	20 (21.74%)	53 (34.19%)	20 (11.11%)	93 (21.78%)
Other <sup>2</sup> n (%)	2 (2.17%)	9 (5.81%)	23 (12.78%)	34 (7.96%)

B&M = brick-and-mortar sites; FD = farm direct sites; N = total number in sample; n = number in subsample; PPR = produce prescription

### **Produce Prescription Participant-Level Results Tables**

**Table B7.** Sociodemographic Characteristics at Baseline Among PPR Participants Who Completed Baseline Surveys in Y5 (N = 6,327) and PPR Participants in the Y5 Impact Analysis (N = 1,962; 2023-2024)<sup>1</sup>

Sociodemographic Characteristics	Participants Who Completed Baseline Surveys in Y5 (N = 6,327) <sup>2</sup>	Participants in the Y5 Impact Analysis (N = 1,962)³
Age (Years)		
Participants Reporting Age (n)	5,900	1,912
Mean (SD)	49.80 (16.74)	55.85 (14.85)
Age Group (Years) n (%)		
18 to 24	551 (9.23%)	36 (1.87%)
25 to 34	824 (13.80%)	159 (8.25%)
35 to 44	919 (15.39%)	252 (13.08%)
45 to 64	2,427 (40.65%)	880 (45.67%)
65 and over	1,247 (20.89%)	585 (30.36%)
Prefer Not to Answer	2 (0.03%)	15 (0.78%)
Missing	357	35

<sup>&</sup>lt;sup>1</sup> Sites that did not report on project marketing activities (e.g., scenarios where this question was not applicable) were removed from the sample. Thus, the number of sites (n) in each column header is based on the number of sites that have data for this metric, not the total number of sites. Percentages are column percentages. Sites may select multiple options for marketing services so the rows in each column will not add up to the number of sites (n).

<sup>&</sup>lt;sup>2</sup> Other responses included: special events, promotion with partnering agencies (e.g., senior's center, food banks, neighborhood associations), etc.

Sociodemographic Characteristics	Participants Who Completed Baseline Surveys in Y5 (N = 6,327) <sup>2</sup>	Participants in the Y5 Impact Analysis (N = 1,962)³
<b>Sex</b> n (%)		
Female	4,675 (75.82%)	1,473 (75.93%)
Male	1,407 (22.82%)	436 (22.47%)
Prefer Not to Answer	84 (1.36%)	31 (1.60%)
Missing	161	22
Race n (%)		
American Indian or Alaskan Native	380 (6.22%)	86 (4.40%)
Asian	104 (1.70%)	26 (1.33%)
Black or African American	1,269 (20.77%)	633 (32.41%)
More Than One Race	712 (11.65%)	118 (6.04%)
Native Hawaiian	54 (0.88%)	31 (1.59%)
Other	788 (12.90%)	96 (4.92%)
Other Pacific Islander	75 (1.23%)	183 (9.37%)
White	2,224 (36.40%)	652 (33.38%)
Don't Know/Not Sure	186 (3.04%)	43 (2.20%)
Prefer Not to Answer	318 (5.20%)	85 (4.35%)
Missing	217	9
Ethnicity n (%)		
Hispanic/Latino	2,158 (35.75%)	347 (18.09%)
Non-Hispanic/Latino	3,771 (62.48%)	1,536 (80.08%)
Prefer Not to Answer	107 (1.77%)	35 (1.82%)
Missing	291	44
Region⁴ n (%)		
Northeast	1,819 (28.75%)	147 (7.49%)
North Central	444 (7.02%)	915 (46.64%)
Southern	3,104 (49.06%)	454 (23.14%)
Western	960 (15.17%)	446 (22.73%)
Missing	0	0

<sup>&</sup>lt;sup>1</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. JAMA. 2021;326(7):621–627.

<sup>&</sup>lt;sup>2</sup> Participants with only a baseline survey in Y5 (September 1, 2023-August 31, 2024) and follow-up planned for subsequent reporting periods.

<sup>&</sup>lt;sup>3</sup> Participants with a baseline and follow-up survey, with follow-up survey collected in Y5 (September 1, 2023-August 31, 2024) and baseline survey from Y4 or Y5.

<sup>&</sup>lt;sup>4</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

**Table B8.** Frequency and Percentage of Food Security Status Among PPR Participants Who Completed Baseline Surveys in Y5 (N = 5,801)<sup>1</sup> by Sociodemographic Characteristics (2023-2024)<sup>2</sup>

Sociodemographic	Food Secure	Food Insecure
Characteristics	(n = 1,752)	(n = 4,049)
Age (Years)		
Participants Reporting Age (n)	1625	3819
Mean (SD)	49.67 (18.84)	49.59 (15.86)
Age Group (Years) n (%)		
18 to 24	232 (43.86%)	297 (56.14%)
25 to 34	228 (29.84%)	536 (70.16%)
35 to 44	212 (25.03%)	635 (74.97%)
45 to 64	552 (24.79%)	1,675 (75.21%)
65 and over	422 (36.95%)	720 (63.05%)
Prefer Not to Answer	0 (0%)	2 (100%)
Missing	106	184
Sex n (%)		
Female	1,263 (29.38%)	3,036 (70.62%)
Male	434 (33.13%)	876 (66.87%)
Prefer Not to Answer	33 (40.24%)	49 (59.76%)
Missing	22	88
Race n (%)		
American Indian or Alaskan Native	42 (13.25%)	275 (86.75%)
Asian	34 (34.00%)	66 (66.00%)
Black or African American	384 (32.27%)	806 (67.73%)
More Than One Race	184 (28.62%)	459 (71.38%)
Native Hawaiian	21 (38.89%)	33 (61.11%)
Other	236 (30.18%)	546 (69.82%)
Other Pacific Islander	21 (30.00%)	49 (70.00%)
White	584 (29.29%)	1,410 (70.71%)
Don't Know/Not Sure	63 (34.62%)	119 (65.38%)
Prefer Not to Answer	133 (43.46%)	173 (56.54%)
Missing	20	113
Ethnicity n (%)		
Hispanic/Latino	680 (32.68%)	1,401 (67.32%)
Non-Hispanic/Latino	960 (28.41%)	2,419 (71.59%)
Prefer Not to Answer	46 (45.10%)	56 (54.90%)
Missing	66	173

<sup>&</sup>lt;sup>1</sup> Participants with a baseline survey in Y5 (September 1, 2023-August 31, 2024) from all active PPR projects. Due to missing data for key variables in this table, the sample size (N) in this table differs from what was reported for the full Baseline Only Sample (N=6,327).

<sup>&</sup>lt;sup>2</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. *JAMA*. 2021;326(7):621–627.

Sociodemographic Characteristics	Food Secure (n = 1,752)	Food Insecure (n = 4,049)
Region <sup>3</sup> n (%)		
Northeast	304 (37.03%)	517 (62.97%)
North Central	101 (23.27%)	333 (76.73%)
Southern	793 (28.79%)	1,961 (71.21%)
Western	554 (30.92%)	1,238 (69.08%)
Missing	0	0
Total	1,752 (30.20%)	4,049 (69.80%)
n (%)	1,752 (50.20 /6)	4,049 (09.00 /0)

<sup>&</sup>lt;sup>3</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

**Table B9.** Daily FV Cup Equivalents Among PPR Participants Who Completed **Baseline Surveys** in Y5 (N = 5,614)<sup>1</sup> Across Sociodemographic Characteristics (2023-2024)<sup>2</sup>

Sociodemographic Characteristics	Fruits and Vegetables (n = 5,614)	Fruits Only (n = 5,614)	Vegetables Only (n = 5,614)
Age Group (Years) Mean (SD)	(11 = 0,011)	(11 – 0,01 1)	( = 0,01.1)
18 to 24	2.28 (0.85)	1.01 (0.69)	1.32 (0.40)
25 to 34	2.31 (0.74)	0.99 (0.56)	1.35 (0.34)
35 to 44	2.31 (0.74)	0.90 (0.49)	1.45 (0.43)
45 to 64	2.39 (0.75)	0.88 (0.43)	1.49 (0.46)
65 and over	2.27 (0.66)	0.79 (0.33)	1.45 (0.43)
Sex Mean (SD)			
Female	2.26 (0.70)	0.89 (0.46)	1.38 (0.39)
Male	2.57 (0.81)	0.90 (0.53)	1.65 (0.49)
Race Mean (SD)			
American Indian or Alaskan Native	2.21 (0.72)	0.84 (0.46)	1.40 (0.42)
Asian	2.53 (0.66)	0.92 (0.39)	1.57 (0.43)
Black or African American	2.33 (0.75)	0.94 (0.57)	1.40 (0.39)
More Than One Race	2.36 (0.80)	0.89 (0.48)	1.48 (0.49)
Native Hawaiian	2.69 (0.77)	0.97 (0.36)	1.70 (0.51)
Other	2.40 (0.68)	0.85 (0.34)	1.53 (0.44)
Other Pacific Islander	2.27 (0.65)	0.89 (0.37)	1.41 (0.47)
White	2.30 (0.74)	0.89 (0.48)	1.42 (0.41)
Don't Know/Not Sure	2.29 (0.73)	0.80 (0.35)	1.48 (0.46)
Prefer Not to Answer	2.30 (0.77)	0.86 (0.44)	1.45 (0.49)

Sociodemographic Characteristics	Fruits and Vegetables (n = 5,614)	Fruits Only (n = 5,614)	Vegetables Only (n = 5,614)
Ethnicity Mean (SD)			
Hispanic/Latino	2.36 (0.71)	0.87 (0.41)	1.49 (0.45)
Non-Hispanic/Latino	2.30 (0.75)	0.89 (0.50)	1.42 (0.42)
Prefer Not to Answer	2.39 (0.86)	0.95 (0.55)	1.45 (0.46)
Region <sup>3</sup> Mean (SD)			
Northeast	2.36 (0.74)	0.93 (0.50)	1.44 (0.44)
North Central	2.10 (0.58)	0.78 (0.36)	1.32 (0.33)
Southern	2.28 (0.76)	0.89 (0.51)	1.41 (0.43)
Western	2.46 (0.72)	0.90 (0.42)	1.54 (0.44)
Total Mean (SD)	2.33 (0.74)	0.89 (0.48)	1.44 (0.43)

**Table B10.** Perceived Health Status of PPR Participants Among PPR Participants Who Completed Baseline Surveys in Y5 (N = 6,327) and PPR Participants in the Y5 Impact Analysis (N = 1,962; 2023-2024)

Perceived Health n (%)	Participants Who Completed Baseline Surveys in Y5¹ (N = 6,327)	Participants in the Y5 Impact Analysis at Baseline <sup>2</sup> (N = 1,962)	Participants in the Y5 Impact Analysis at Follow-up <sup>2</sup> (N = 1,962)
Poor	876 (14.00%)	222 (11.35%)	169 (8.67%)
Fair	2,905 (46.42%)	848 (43.35%)	771 (39.54%)
Good	1,883 (30.09%)	677 (34.61%)	773 (39.64%)
Very Good	388 (6.20%)	151 (7.72%)	168 (8.62%)
Excellent	103 (1.65%)	47 (2.40%)	54 (2.77%)
Don't Know/ Prefer Not to Answer	103 (1.65%)	11 (0.56%)	15 (0.77%)
Missing <sup>3</sup>	69	6	12

N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Participants with a baseline survey in Y5 (September 1, 2023-August 31, 2024) from all active PPR projects. Due to missing data for key variables in this table, the sample size (N) in this table differs from what was reported for the full Baseline Only Sample (N = 6,327).

<sup>&</sup>lt;sup>2</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. *JAMA*. 2021;326(7):621–627.

<sup>3</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

<sup>&</sup>lt;sup>1</sup> Participants with a baseline survey in Y5 (September 1, 2023-August 31, 2024) from all active PPR projects.

<sup>&</sup>lt;sup>2</sup> Participants who (1) participated in a PPR project that completed its award in Y5 (September 1, 2023-August 31, 2024); (2) had a matched baseline and follow-up survey from any year of the PPR award; (3) had follow-up surveys dated at least 90 days after baseline.

<sup>&</sup>lt;sup>3</sup> Missing values for perceived health status are not included in percentage calculations.

**Table B11.** Frequency and Percentage of Food Security Status Among PPR **Participants in the Y5 Impact Analysis** (N = 1,861)1 by Sociodemographic Characteristics  $(2023-2024)^{2,3}$ 

ociodemographic haracteristics Food Secure Baseline (n = 607)		Food Secure Post (n = 806)	Food Insecure Baseline (n = 1,254)	Food Insecure Post (n = 1,055)	
Age (Years)					
n	591	783	1,222	1,030	
Mean (SD)	57.87 (16.43)	57.55 (16.08)	55.24 (14.03)	54.99 (13.84)	
Age Group (Years)					
25 to 34	14 (38.89%)	17 (47.22%)	22 (61.11%)	19 (52.78%)	
35 to 44	55 (36.91%)	71 (47.65%)	94 (63.09%)	78 (52.35%)	
45 to 64	62 (27.43%)	84 (37.17%)	164 (72.57%)	142 (62.83%)	
65 and over	221 (26.37%)	309 (36.87%)	617 (73.63%)	529 (63.13%)	
	4 (26.67%)	6 (40.00%)	11 (73.33%)	9 (60.00%)	
Missing	12	17	21	16	
<b>Sex</b> n (%)					
Female	453 (32.54%)	608 (43.68%)	939 (67.46%)	784 (56.32%)	
Male	137 (32.78%)	172 (41.15%)	281 (67.22%)	246 (58.85%)	
Prefer Not to Answer	11 (36.67%)	19 (63.33%)	19 (63.33%)	11 (36.67%)	
Missing	6	7	15	14	
Race n (%)					
American Indian or Alaskan Native	21 (28.38%)	26 (35.14%)	53 (71.62%)	48 (64.86%)	
Asian	10 (41.67%)	16 (66.67%)	14 (58.33%)	8 (33.33%)	
Black or African American	229 (37.54%)	293 (48.03%)	381 (62.46%)	317 (51.97%)	
More Than One Race	35 (34.31%)	47 (46.08%)	67 (65.69%)	55 (53.92%)	
Native Hawaiian	10 (32.26%)	13 (41.94%)	21 (67.74%)	18 (58.06%)	
Other	24 (25.53%)	35 (37.23%)	70 (74.47%)	59 (62.77%)	
Other Pacific Islander	31 (17.03%)	59 (32.42%)	151 (82.97%)	123 (67.58%)	
White	200 (32.73%)	252 (41.24%)	411 (67.27%)	359 (58.76%)	
Don't Know/Not Sure	17 (39.53%)	22 (51.16%)	26 (60.47%)	21 (48.84%)	
Prefer Not to Answer	27 (32.93%)	38 (46.34%)	55 (67.07%)	44 (53.66%)	
Missing	3	5	5	3	
Ethnicity n (%)					
Hispanic/Latino	105 (31.63%)	621 (42.71%)	227 (68.37%)	833 (57.29%)	
Non-Hispanic/Latino	478 (32.87%)	152 (45.78%)	976 (67.13%)	180 (54.22%)	
Prefer Not to Answer	12 (36.36%)	14 (42.42%)	21 (63.64%)	19 (57.58%)	
Missing	12	19	30	23	

Sociodemographic Characteristics	Food Secure Baseline (n = 607)	Food Secure Post (n = 806)	Food Insecure Baseline (n = 1,254)	Food Insecure Post (n = 1,055)
Region <sup>4</sup> n (%)				
Northeast	44 (29.93%)	193 (44.47%)	103 (70.07%)	241 (55.53%)
North Central	298 (32.57%)	372 (40.66%)	617 (67.43%)	543 (59.34%)
Southern	129 (35.34%)	170 (46.58%)	236 (64.66%)	195 (53.42%)
Western	136 (31.34%)	71 (48.30%)	298 (68.66%)	76 (51.70%)
Missing	0	0	0	0
Total n (%)	607 (32.62%)	806 (43.31%)	1,254 (67.38%)	1,055 (56.69%)

**Table B12.** Daily FV Cup Equivalents Among PPR Participants (**Y5 Analytic Sample** (N = 1,740))¹ Across Sociodemographic Characteristics (2023-2024)²

Sociodemographic Characteristics	Fruits and Vegetables³ Baseline (n = 1,740)	Fruits and Vegetables³ Post (n = 1,740)	Fruits Only Baseline (n = 1,740)	Fruits Only Post (n = 1,740)	Vegetables Only Y4 Baseline (n = 1,740)	Vegetables Only Y4 Post (n = 1,740)
Age Group (Years) Mean (SD)						
18 to 24	2.27 (0.88)	2.43 (0.55)	0.92 (0.39)	1.09 (0.54)	1.37 (0.58)	1.40 (0.31)
25 to 34	2.48 (0.83)	2.58 (0.78)	1.09 (0.64)	1.10 (0.55)	1.43 (0.42)	1.50 (0.42)
35 to 44	2.49 (0.92)	2.55 (0.85)	1.01 (0.60)	1.03 (0.54)	1.52 (0.53)	1.57 (0.49)
45 to 64	2.43 (0.85)	2.59 (0.80)	0.91 (0.50)	0.99 (0.49)	1.53 (0.51)	1.60 (0.47)
65 and over	2.33 (0.70)	2.44 (0.67)	0.85 (0.39)	0.90 (0.38)	1.47 (0.44)	1.53 (0.44)
Sex Mean (SD)						
Male	2.34 (0.76)	2.45 (0.70)	0.92 (0.48)	0.96 (0.44)	1.44 (0.44)	1.50 (0.41)
Female	2.63 (0.94)	2.83 (0.88)	0.92 (0.56)	1.04 (0.59)	1.70 (0.58)	1.79 (0.52)

<sup>&</sup>lt;sup>1</sup> Participants with a baseline and follow-up survey, with follow-up survey collected in Y5 (September 1, 2023-August 31, 2024) and baseline survey from Y4 or Y5.

<sup>&</sup>lt;sup>2</sup> Missing values for age group, sex, ethnicity, and race are not included in percentage calculations.

<sup>&</sup>lt;sup>3</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals. *JAMA*. 2021;326(7):621–627.

<sup>&</sup>lt;sup>4</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

#### Appendix 9. Produce Prescription Results Tables

Sociodemographic Characteristics	Fruits and Vegetables³ Baseline (n = 1,740)	Fruits and Vegetables <sup>3</sup> Post (n = 1,740)	Fruits Only Baseline (n = 1,740)	Fruits Only Post (n = 1,740)	Vegetables Only Y4 Baseline (n = 1,740)	Vegetables Only Y4 Post (n = 1,740)
Race Mean (SD)						
American Indian or Alaskan Native	2.31 (0.77)	2.45 (0.72)	0.85 (0.46)	0.94 (0.45)	1.47 (0.46)	1.52 (0.41)
Asian	2.65 (0.75)	2.93 (0.96)	0.93 (0.54)	1.08 (0.59)	1.71 (0.41)	1.87 (0.61)
Black or African American	2.39 (0.77)	2.50 (0.72)	0.95 (0.56)	0.99 (0.47)	1.46 (0.43)	1.52 (0.43)
More Than One Race	2.45 (0.77)	2.64 (0.87)	0.94 (0.46)	0.99 (0.45)	1.52 (0.44)	1.65 (0.51)
Native Hawaiian	2.63 (0.84)	2.91 (0.69)	0.91 (0.39)	1.05 (0.42)	1.70 (0.54)	1.82 (0.42)
Other	2.72 (0.89)	2.77 (0.67)	1.06 (0.58)	1.08 (0.40)	1.70 (0.53)	1.72 (0.47)
Other Pacific Islander	2.24 (1.02)	2.39 (0.76)	0.78 (0.41)	0.87 (0.46)	1.47 (0.70)	1.54 (0.50)
White	2.38 (0.74)	2.52 (0.77)	0.91 (0.44)	0.98 (0.49)	1.47 (0.43)	1.54 (0.43)
Don't Know/Not Sure	2.42 (0.73)	2.84 (0.99)	0.89 (0.46)	1.16 (0.61)	1.52 (0.45)	1.74 (0.59)
Prefer Not to Answer	2.63 (1.09)	2.53 (0.72)	1.03 (0.64)	1.14 (0.49)	1.63 (0.64)	1.59 (0.48)
Ethnicity Mean (SD)						
Hispanic/Latino	2.57 (0.87)	2.68 (0.82)	0.99 (0.55)	1.05 (0.51)	1.60 (0.52)	1.66 (0.50)
Non-Hispanic/Latino	2.38 (0.81)	2.51 (0.75)	0.91 (0.49)	0.97 (0.47)	1.48 (0.48)	1.55 (0.45)
Prefer Not to Answer	2.43 (0.89)	2.68 (0.88)	0.95 (0.47)	1.09 (0.49)	1.49 (0.48)	1.60 (0.47)
Region <sup>4</sup> Mean (SD)						
Northeast	2.67 (0.80)	2.81 (0.74)	1.01 (0.46)	1.07 (0.43)	1.68 (0.51)	1.76 (0.48)
North Central	2.41 (0.82)	2.46 (0.74)	0.95 (0.54)	0.96 (0.48)	1.48 (0.46)	1.50 (0.42)
Southern	2.35 (0.74)	2.58 (0.79)	0.91 (0.47)	1.02 (0.51)	1.45 (0.43)	1.58 (0.47)
Western	2.36 (0.89)	2.55 (0.77)	0.85 (0.45)	0.94 (0.44)	1.51 (0.56)	1.60 (0.48)
Total Mean (SD)	2.41 (0.82)	2.54 (0.76)	0.92 (0.50)	0.98 (0.48)	1.50 (0.49)	1.56 (0.46)

N = total number in sample; n = number in subsample; PPR = produce prescription

<sup>&</sup>lt;sup>1</sup> Participants with a baseline and follow-up survey, with follow-up survey collected in Y5 (September 1, 2023-August 31, 2024) and baseline survey from Y4 or Y5.

<sup>&</sup>lt;sup>2</sup> Variables are in alphabetical order following recent guidance from: Flanagin, A., Frey, T., Christiansen, S.L., AMA Manual of Style Committee. Updated guidance on the reporting of race and ethnicity in medical and science journals. *JAMA*. 2021;326(7):621-7.

<sup>&</sup>lt;sup>3</sup> Vegetables calculated with legumes and without french fries.

<sup>&</sup>lt;sup>4</sup> Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

**Table B13.** Program Satisfaction Among PPR Participants at Follow-Up Among PPR Participants in the Y5 Impact Analysis (N = 1,962; 2023-2024)

Program Satisfaction n (%)	Participants in the Y5 Impact Analysis (N = 1,962) <sup>1</sup>		
Very Negative	8 (0.42%)		
Negative	13 (0.68%)		
Neutral	98 (5.16%)		
Positive	499 (26.29%)		
Very Positive	1,268 (66.81%)		
Don't Know/ Prefer Not to Answer	12 (0.63%)		
Missing <sup>2</sup>	64		

<sup>&</sup>lt;sup>1</sup> Participants who (1) participated in a PPR project that completed its award in Y5 (September 1, 2023-August 31, 2024); (2) had a matched baseline and follow-up survey from any year of the PPR award; (3) had follow-up surveys dated at least 90 days after baseline.

<sup>&</sup>lt;sup>2</sup> Missing values for program satisfaction are not included in percentage calculations.

# Appendix 10. Peer-Reviewed Publications During Y5

Banerjee T, Levi R, Basu S, et al. Preferences for food vouchers among adults with low incomes. *J Hunger Environ Nutr.* 2024;1–12. doi:10.1080/19320248.2024.2383753.

Figueroa R, Houghtaling B. Food is medicine and implementation science: A recipe for health equity. *Transl Behav Med*. 2024;14(4):234-240. doi:10.1093/tbm/ibae005.

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