Gus Schumacher Nutrition Incentive Program (GusNIP): Year 3 Impact Findings

September 1, 2021 to August 31, 2022

Nutrition Incentive Hub
CREATED BY GUSNIP NTAE CENTER

Developed by Gretchen Swanson Center for Nutrition in collaboration with Fair Food Network and U.S. Department of Agriculture, National Institute of Food and Agriculture.

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GRETCHEN SWANSON CENTER FOR NUTRITION

FAIR FOOD NETWORK

USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

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Overview

Gus Schumacher Nutrition Incentive Program (GusNIP)

The Gus Schumacher Nutrition Incentive Program (GusNIP) aims to increase food and nutrition security among communities with low income while improving local economies and food systems in the United States (U.S.). GusNIP provides funding for grantees to develop and conduct projects that distribute financial incentives to consumers with low income for fruit and vegetable (FV) purchases and FV prescriptions. GusNIP also funds a separate NTAE Center (defined below) that supports GusNIP grantees through evaluation and technical assistance (TA). Formerly known as the Food Insecurity Nutrition Incentive (FINI) program, GusNIP is a competitive grant program funded through the United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) with support from USDA Food and Nutrition Service. GusNIP supports:

1. **Nutrition Incentive (NI)** projects that provide incentives to individuals using USDA's Supplemental Nutrition Assistance Program (SNAP) and Nutrition Assistance Program (NAP) benefits to purchase fruits and vegetables (FVs);
2. **Produce Prescription (PPR)** projects that provide prescriptions in the form of incentives for the purchase of fresh FVs; and
3. **The Nutrition Incentive Program Training, Technical Assistance, Evaluation and Information Center (GusNIP NTAE),** which provides training, technical assistance, reporting and evaluation support to GusNIP grantees.

For GusNIP year three (Y3; September 1, 2021, to August 31, 2022), USDA NIFA awarded $34M to GusNIP NI and PPR projects and $7M to the GusNIP NTAE. In 2021, Congress approved an extra $69M for the Gus Schumacher Nutrition Incentive Program COVID Relief and Response (GusCRR) grants program. With this investment, USDA NIFA extended the reach of GusNIP to ensure communities most affected by the COVID-19 pandemic could access nutritious foods. The total GusNIP and GusCRR award funding for Y3 was $110M. On June 1, 2022, USDA announced an additional $40M for PPR projects allocated through the American Rescue Plan Act (ARPA); associated reporting will occur during year four (Y4).

This report presents outcomes and impacts from projects that used GusNIP and/or GusCRR funding in Y3. For a glossary of acronyms/abbreviations used in this report, see **Appendix 1**.

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

The **Gretchen Swanson Center for Nutrition (GSCN)**, a nonprofit nutrition research center, leads the GusNIP NTAE cooperative agreement with **USDA NIFA**. GSCN partners with **Fair Food Network** and a coalition of national partners, referred to as the **Nutrition Incentive Hub.** Together, the Nutrition Incentive Hub provides GusNIP applicants and grantees with reporting and evaluation (R&E) as well as technical assistance and innovation (TA&I) services. GSCN leads R&E, and Fair Food Network leads TA&I. See the GusNIP NTAE organizational chart in **Appendix 2** for a full list of partners.

The primary goal of the GusNIP NTAE is to amplify and assess the aggregate impact of Congressional funding on key outcomes of interest. NI and PPR projects aim to positively impact FV intake, food security, and the local economy among priority populations[2] and communities. PPR projects have the added goal of aiming to decrease health care utilization and cost.

Collaboration with Nutrition Incentive and Produce Prescription Projects

The GusNIP NTAE supported 77 grantees to more efficiently and effectively implement, report and evaluate their projects. The GusNIP NTAE and Nutrition Incentive Hub's services are tailored to differing NI and PPR approaches. NI projects provide financial incentives for FV purchases to eligible individuals participating in SNAP/NAP. For instance, participants pay $10, but receive $20 worth of FVs. PPR projects involve coordination with a health care entity (e.g., clinic) to provide a prescription for fresh FV purchases to eligible individuals (e.g., report low income, food insecurity, diet-related chronic disease). For both NI and PPR projects, enrollment, incentive distribution and incentive redemption occur at food retail outlets and clinics (i.e., sites).[3]

As a requirement of funding, GusNIP/GusCRR NI and PPR grantees collaborate with the GusNIP NTAE's R&E team to implement core measures in order to evaluate key outcomes of interest. These core measures, described further in the results section, assess **participant-level** (**Appendix 3**) and **site-level** (**Appendix 4**) outcomes.

Site Definition

Sites are locations where GusNIP projects are administered and are divided into three types:

- **FD sites:** farmers markets, farm stands, community supported agriculture (CSA), mobile markets
- **B&M sites:** grocery stores, supermarkets, corner stores, wholesale
- **Health care clinics:** Federally Qualified Health Centers, primary care offices, hospitals

NI and PPR projects include FD and B&M sites where participants redeem incentives. PPR projects may also include health care clinics as a site type.

Participant-level core measures assess the impact of NI and PPR projects on FV intake, food security and other indicators of health. Site-level core measures provide descriptive information about project delivery, incentive utilization patterns and project reach. The R&E team analyzes core measures data and disseminates evaluation results to USDA NIFA, Congress and other interested parties.

[2] Priority populations are population groups at risk of socially produced health inequities.

[3] Sites are referred to as "firms" in the GusNIP Request for Applications. All NI sites are SNAP-authorized food retail outlets.

Results

The GusNIP RFAs have required all grantees, except GusNIP Pilot Projects, to report on a core set of participant- and site-level measures to ensure common tracking and enable meaningful comparisons across all projects. During Y3, the new 2021 grantees launched their projects. This report presents key outcomes derived from both participant- and site-level data collected from active GusNIP projects.

Description of Participant- and Site-Level Core Measures for GusNIP

- **What are GusNIP's core measures?**
  The core measures evaluate key participant- and site-level outcomes of interest. The NTAE worked with USDA NIFA, grantees, sites and expert partners to identify tools that would be feasible to evaluate these core measures.
- **What are participant-level outcomes?**
  Participant-level outcomes are measured using a set of survey items validated among populations with low income that were selected for feasibility and ease of use. For example, the participant-level survey assesses FV intake using the 10-item National Cancer Institute's Dietary Screener Questionnaire (DSQ), food security using the USDA Short Form Security Survey and one item on self-reported health, respectively.
- **When are participant-level outcomes collected?**
  NI grantees collect cross-sectional surveys annually throughout the award duration with the sample size dependent on project size (i.e., pilot, standard or large scale). PPR grantees collect surveys at baseline and post-project implementation among a cohort of participants enrolled in the project over the duration of the grant (See **Appendix 3** for participant data collection methodology). NI and PPR participant-level data collected by August 31 are submitted annually to the NTAE.
- **What are site-level outcomes?**
  Site-level outcomes were designed to monitor project implementation and identify which properties of NI and PPR projects are most effective at increasing incentive redemption (See **Appendix 4** for site-level evaluation methods). These core measures were collected from food retail outlets as well as clinics and are reported in FD, B&M and clinic categories. The site-level data, such as the dollar amount of incentives distributed and redeemed each month, are also used to calculate local economic impact.
- **When are site-level outcomes collected?**
  NI and PPR grantees work with collaborating sites to submit the site-level data in the GusNIP NTAE's website portal monthly and annually.

An analysis of data collected in year two (Y2) of GusNIP conducted by the GusNIP NTAE showed promising effects on FV purchasing and intake, household food security and local economic impact attributed to the program. The Y3 report builds on the GusNIP NTAE's previous annual reports, uses data collected in Y3 and distinguishes GusNIP from GusCRR reach and impact. Presented first are the combined incentive distribution, incentive redemption and economic impact results for both NI and PPR projects. Separate results sections for NI and PPR projects follow thereafter.

Combined Results for NI and PPR Projects

Description of 2021 GusNIP and GusCRR Grantees

In 2021 (GusNIP Y3), USDA NIFA awarded $110M in GusNIP and GusCRR grants to a wide array of NI and PPR projects. Awards ranged from $100,000 to $6.3M over one to four years for a total of 28 GusNIP awards (18 NI and 10 PPR) and 35 GusCRR awards (20 NI and 15 PPR) spanning 35 states, the District of Columbia and all four NIFA regions. Project details, including funding amount, geographic reach, site counts/types and links to initial descriptions for all 63 GusNIP and GusCRR projects awarded in Y3 are available in **Appendix 5**. In addition, the GusNIP NTAE continued to support 29 NI awards and 19 PPR awards from 2019 to 2020, bringing the total supported in Y3 to 111 active GusNIP/GusCRR awards across 82 projects and 77 grantee organizations.[4]

GusNIP Incentives Distributed and Redeemed

Since 2019 (GusNIP Y1), grantees have reported strong and steady growth in the dollar amount of incentives **redeemed**[5] by families with low income to purchase FVs. Note that the dollar amount of incentives redeemed includes federal grant funding and match funding. This is distinct from the dollar amount of federal funding spent on all project costs reported below. In Y3, grantees reported twice the dollar value of incentives redeemed at almost double the number of redemption sites when compared to Y2.

Incentives **redeemed** by GusNIP include: Y1 = $4,061,755 across 588 sites; Y2 = $20,920,429 across 1,876 sites; Y3 = $41,557,249 across 3,608 sites. In summary, each subsequent year of GusNIP, more FVs are being purchased by individuals and families who need them at participating food retail outlets and clinics.

With the GusNIP NTAE's help, Y3 grantees demonstrated efficient spending of federal grant dollars to successfully implement their projects. Grantees **distributed** $30,491,229 in federal funding as direct incentives (note: this does not include any match funding). GusNIP/GusCRR projects include more costs than just direct incentives (e.g., staff time to operate the projects). In Y3, grantees spent $41,843,086 in federal funding on all project costs (does not include match funds) which means that **73% of federal funding was allocated to direct incentives for FVs to people living in the U.S. with low income.** From Y1 to Y2, grantees increased the proportion of their budgets allocated to incentives (75% in Y2 versus 68% in Y1). Grantees maintained a similarly high allocation in Y3 (73%).

[4] Counts for grantees, awards, and projects differ because grantee organizations can run multiple projects and receive multiple awards to fund the same project. For example, one grantee organization runs three projects (one NI and two PPR) and has four awards funding those projects (two GusNIP and two GusCRR).

[5] 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.

Economic Impact of NI and PPR Projects

In Y3, GusNIP/GusCRR NI and PPR projects cumulatively generated a substantial total local economic impact using the **Local Economic Impact Calculator**. The estimated impact includes both direct effects (e.g., sales at participating sites) and indirect effects (e.g., how sites spend the extra revenue on hiring, marketing, etc.) and is indicative of the upper bound of economic impact an initiative may generate. **Cumulatively, GusNIP/GusCRR NI and PPR projects generated $85,607,933 in economic benefit for surrounding local economies** ($39,453,658 for FD; $45,874,245 for B&M; $280,030 for clinics; **Figure 1**). This value represents the dollar amount of money generated from total incentive program sales ($41,557,249) for the communities surrounding the 3,608 participating sites that reported data (**Figure 1**). Of the total dollar amount of incentives redeemed ($41,557,249), GusCRR supported $13,549,258, which generated an estimated economic impact of $27,911,471 among communities across the country.

Although both NI and PPR projects are intended to promote economic equity in local communities, most of the economic impact associated with GusNIP/GusCRR is generated from NI projects. Notably, NI projects received the bulk of GusNIP/GusCRR funding (nearly 90%) and are larger in grant amounts (up to $4.3M for GusNIP and up to $6.3M for GusCRR). In addition, NI projects are required to contribute match dollars[6] for every GusNIP dollar awarded (**Figure 1**), which generates additional economic impact. In contrast, PPR projects are smaller (up to $500,000 for GusNIP and up to $647,000 for GusCRR) and do not have the match funding requirement. It is important to note that PPR projects have an additional aim to reduce health care cost and utilization at the clinic level, which is hypothesized to have downstream economic effects and will be reported in future years.

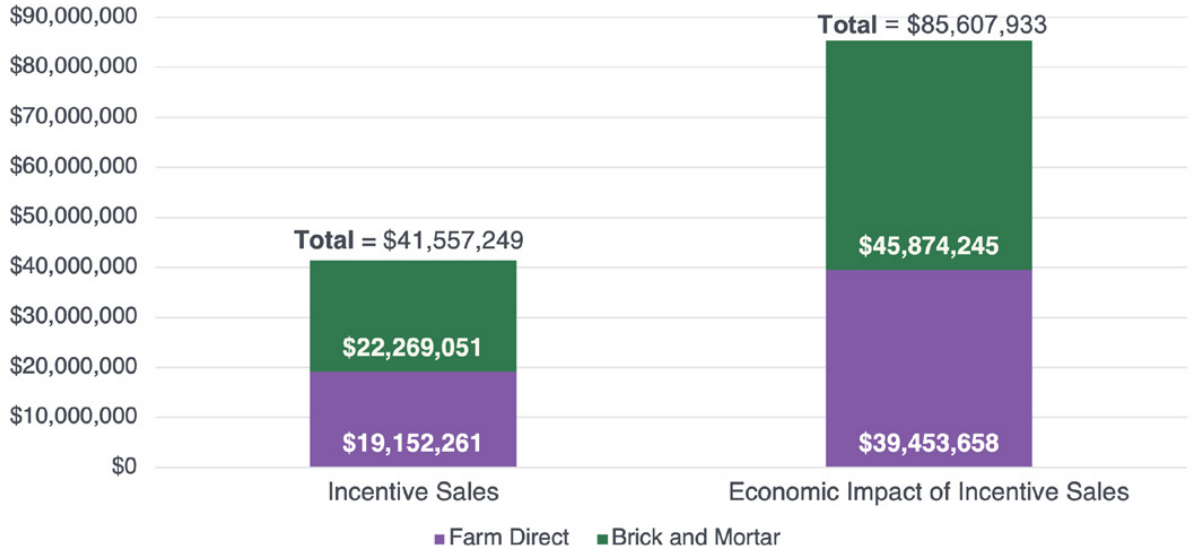
Participants are excited to support their local economy:

> *"[The PPR Project] allows me to do that: to support local food, and to support a farmer directly, and to support sustainable labor."*

- Southern region PPR participant

[6] 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.

Figure 1. Local Economic Impact of NI and PPR Projects by Site Type (2021-2022)[1]



[1]The total amounts include incentives redeemed at clinics totaling $135,937 with an economic impact of $280,030

Nutrition Incentive Program Outcomes

NI Site-Level Outcomes

In Y3, 36 GusNIP grantees throughout the U.S. received 38 awards (18 GusNIP and 20 GusCRR) to operate their NI projects.[4] All 2019, 2020 and 2021 GusNIP/GusCRR awarded NI projects (except for GusNIP Pilot Projects) that were active during Y3 were required to report site-level core measures. See **Appendix 4** for a description of the methods and measures used for site-level reporting and **Appendix 6** for all NI site-level outcome tables.

NI Site Types

Among all active NI projects in GusNIP Y3, a total of **2,928** sites (FD = 1,850; B&M = 1,078) received GusNIP/GusCRR funding (**Figure 2**), expanding access to FVs through incentives. Of these Y3 active sites, 1,179 used GusCRR funding. Over the past three years, there has been a steady increase in the proportion of B&M NI sites (Y1 = 25.0%, Y2 = 30.8%, Y3 = 36.8%; **Figure 2**). This increase demonstrates a shift in the type of food retail outlets where incentives are distributed and redeemed over time. NI sites also reached a mix of urban, rural and tribal populations: 82.5% of NI sites primarily serving urban populations, 16.3% serving rural populations, and 1.1% serving tribal populations (**Figure 3**).

Figure 2. NI Project Site Types (2021-2022; n = 2,928)

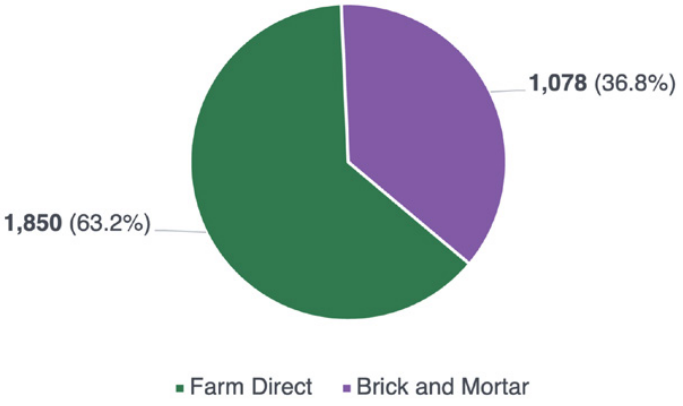
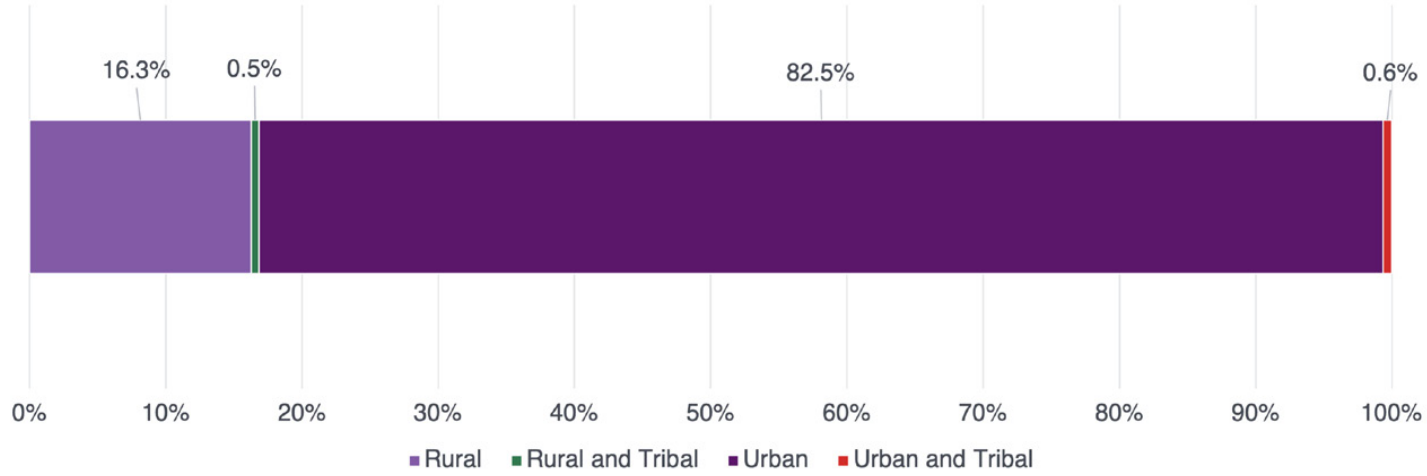


Figure 3. Populations Served by Site Service Areas Among NI Projects (2021-2022; n = 2,928)



During GusNIP Y3, the number of sites in operation increased, largely due to new GusNIP/GusCRR projects. **Figure 4** shows the number of NI sites by month of operation. The number of FD sites operating was higher in the fall, spring, and summer than the winter months, leading to a U-shaped curve across Y3. The number of B&M sites grew steadily over the year with a larger increase in the spring 2022. Overall, the number of participating sites increased as grantees launched their projects in September 2021, decreased during the winter months, increased again in the spring, and then leveled off in the summer months (**Figure 4**). This pattern reflects the seasonal nature of incentive distribution and redemption in many NI projects, especially those in FD settings that align with growing and harvesting seasons across the U.S.

NI Reach to Underserved Communities

NI projects operated in locations across the country with high levels of people experiencing poverty. **NI sites were located in communities where, on average, 14.1% of the community members have incomes below the federal poverty level, compared to 11.4% nationally.**[7,8] In 2020, the official poverty rate across the U.S. was 11.4%, which increased from 10.5% in 2019 and was the first surge in poverty after five consecutive annual declines. The map in **Figure 5** (next page) shows the reach of NI sites across the country by poverty level. For a more detailed view, see regional maps and state level poverty reach estimates in **Appendix 7**.

[7] County-level poverty estimates are from the American Community Survey 2020 vintage 5-year estimates.

[8] Shrider, E.A., Kollar, M., Chen, F., et al. U.S. Census Bureau, Current Population Reports, P60-273, Income and Poverty in the United States: 2020, U.S. Government Publishing Office, Washington, DC, September 2021.

Figure 4. Total Number of Sites Participating in NI Projects by Month of Operation (2021-2022)

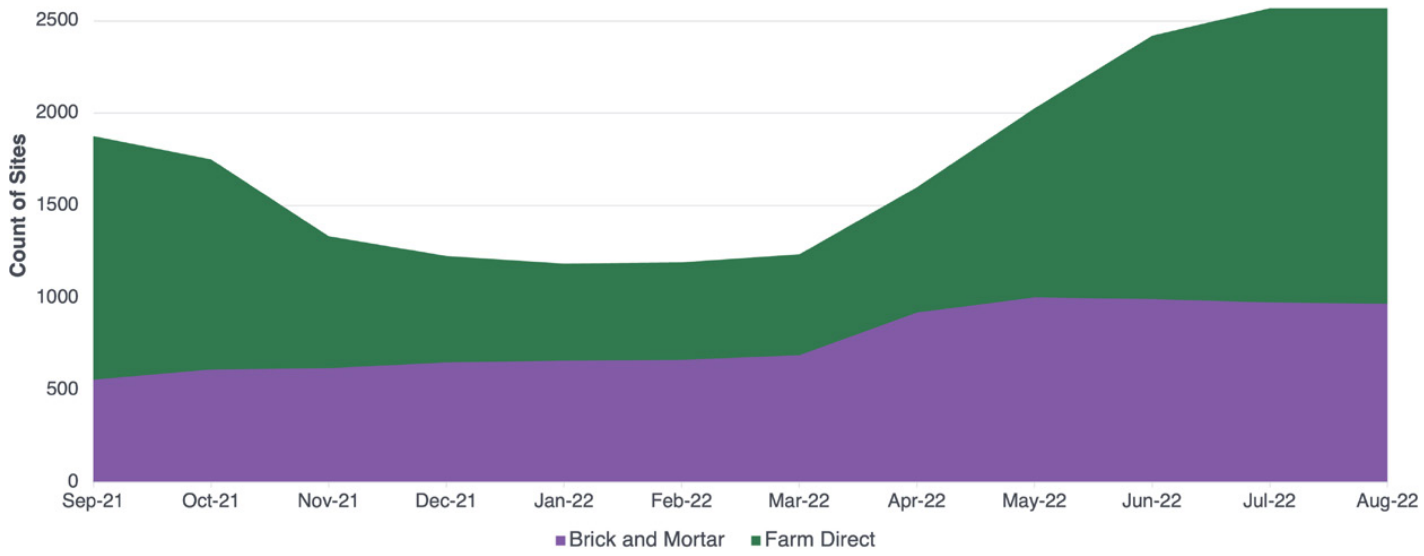
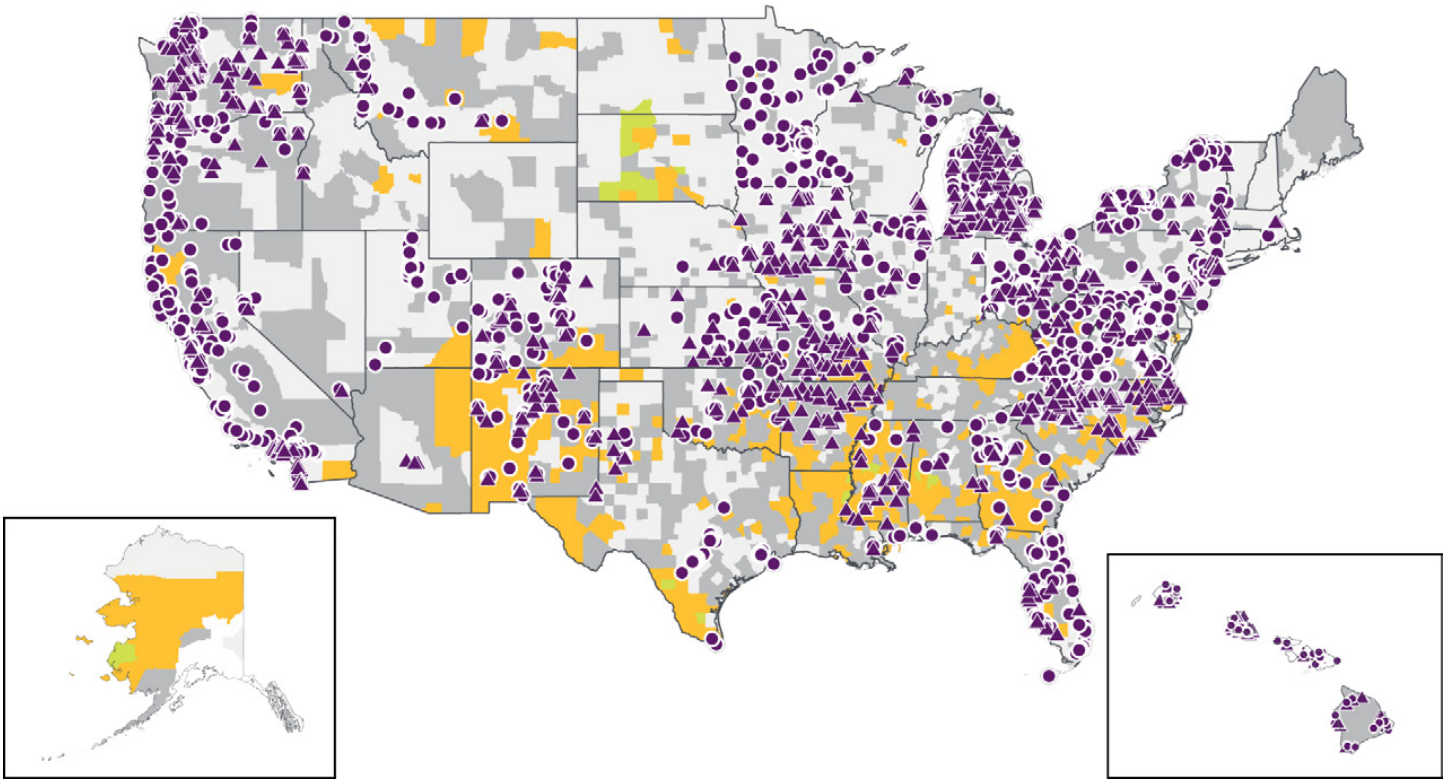


Figure 5. Reach of NI Sites Across the Country by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- >20%

NI Reach to Participants

Reach is the number of participants that NI projects serve at a given time. To estimate reach, NI sites are asked to indicate the number of unique participants reached monthly. Understanding the reach of unique NI projects is complex due to point-of-sale system limitations and confidentiality requirements for tracking individuals by SNAP/Electronic Benefits Transfer (EBT) card number. For example, some point-of-sale systems associated with a cash register do not store unique customer data about the number of shopping times per month or throughout the year.

To overcome challenges with reporting unique participants, the GusNIP NTAE has developed "proxy estimates" that are based upon reports from sites that *can* report unique participants and the dollar amount of incentives redeemed. To increase accuracy, these proxy estimates are categorized across groupings of site types (e.g., traditional B&M, smaller B&M, farmers markets, farm stands).

In total, 26% of NI sites provided reach estimates. The proxy estimate approach was used to extrapolate the reported reach data to all sites. **Figure 6** provides the monthly estimates of the number of NI participants reached each month. On average, the GusNIP NTAE estimates that there were **146,146 NI participants reached monthly** during Y3.[9]

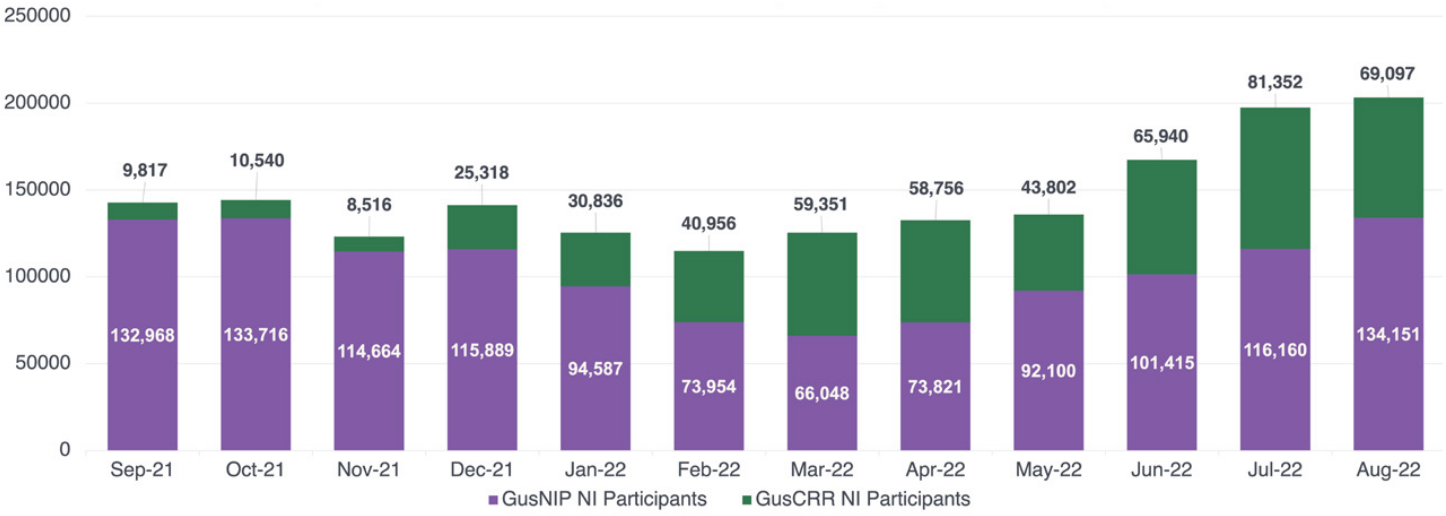
[9] Due to challenges associated with collecting NI project reach to unique participants, Y3 is the first year the GusNIP NTAE was able to estimate monthly NI project reach.

Participants are excited about eating healthier:

> *"I love your boxes. They are great. Every time I pick one up, I go home and take a picture of what I've gotten and share it with everyone I know, saying 'Look at what I got this week!'"*

North Central region NI project participant

Figure 6. Total Estimated Number of Customers by Award Type in Y3 Across NI Projects[1]



[1] Of the average 146,146 NI participants reached each month, 104,122 participants redeemed incentives funded by GusNIP awards and 42,024 participants redeemed incentives funded by GusCRR awards. The GusCRR grant year began in June 2021. The estimated monthly number of unique participants served by GusCRR-funded incentives during the first three months were 1,002 (June 2021); 3,415 (July 2021); 8,721(August 2021).

NI Financial Instruments and Models

Incentives are distributed and redeemed using different financial instruments, such as loyalty cards, tokens or vouchers (described in **Table 1**). Across all NI projects, the most common instrument for incentive distribution and redemption was "paper vouchers or coupons" (n = 1,322, 45.2%), followed by "tokens" (n = 775, 26.5%), "loyalty card accounts" (n = 419, 14.3%) and "automatic discount at the register" (n = 402, 13.7%; **Table A1**). A smaller proportion of NI projects reported using other instruments for incentive distribution and redemption such as "CSA models" (n = 42,1.4%) and "integration with Electronic Benefits Transfer (EBT) cards" (n = 37, 1.3%; **Table A1**).

Due to the use of central EBT terminals, tokens were most often used at FD sites compared to B&M sites (41.6% vs. 0.6%) and loyalty accounts were more often used at B&M sites compared to FD sites (35.4% vs. 2.0%). Differences in the financial instrument used to distribute and redeem incentives by site type are reported in **Table A1**. See **Appendix 6** for all tables reporting NI site-level results.[10]

Sites associated with NI projects have eligible food and/or beverage items that trigger incentive distribution and items that are eligible for incentive redemption (see **Table 2** below for descriptions). Notably, fresh, frozen and/or canned FVs without added sugars, fats, oils or salt are eligible for redemption according to the GusNIP RFAs (2019 through 2021). Grantees can further limit what is eligible for redemption within their project.

The models for triggering incentive distribution differed vastly by site type. Among B&M sites, the most common trigger for incentive distribution was "fresh FVs only" (n = 410, 38.0%), then "all SNAP eligible items" (n = 283, 26.3%), and "all FVs (fresh, canned, frozen, dried, plants, seeds)" (n = 242, 22.4%; **Table A2**). Among FD sites, the most common trigger for distributing incentives was "all SNAP eligible items" (n = 1,620, 87.6%), followed by "fresh FVs only" (n = 137, 7.4%), "only state or regionally grown FVs" (n = 64, n = 3.5%), and "all FVs (fresh, canned, frozen, dried, plants, seeds)" (n = 26, 1.4%; **Table A2**). FD sites, such as farmers markets, tend to implement projects that specify incentive distribution as "all SNAP eligible items" since they typically sell FVs and other locally produced items as their primary SNAP-eligible items.

The most common items used for redeeming incentives were "fresh FVs only" (n = 1,204, 41.4%), followed by "all FVs (fresh, canned, frozen, dried, plants, seeds)" (n = 989, 33.8%), and "only state or regionally grown FVs" (n = 734, 25.1%; **Table A3**). B&M sites were more likely than FD sites to use "fresh FVs only" (45.5% at B&M vs. 38.6% at FD) and "all FVs (fresh, canned, frozen, dried, plants, and/or seeds)" (41.4% at B&M vs. 29.4% at FD) for redeeming incentives (**Table A3**). In contrast, FD sites were more likely to use "only state or regionally grown FVs" (32.0% at FD vs. 13.2% at B&M) for redeeming incentives (**Table A3**).

[10] Some sites use multiple financial instruments for incentives, so these categories are not mutually exclusive.

Table 1. Definitions and Examples of Financial Instrument

Financial Instruments	Definitions and Examples
Token	The incentive is a physical item typically provided in farmers market settings when an NI participant swipes their EBT card at a central location.
Paper vouchers or coupons	The incentive 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 is integrated into a site's loyalty program through a physical card or unique account number (e.g., phone number).
Discount at the register	The incentive is an automatic discount provided at the point of sale.
EBT cards	The incentive is integrated into a participant's EBT card.
CSA share or produce box	The incentive is provided to NI participants in the form of a weekly or monthly CSA share or produce box.

Table 2. Definitions and Examples of Eligible Products for Earning and Redeeming Incentives

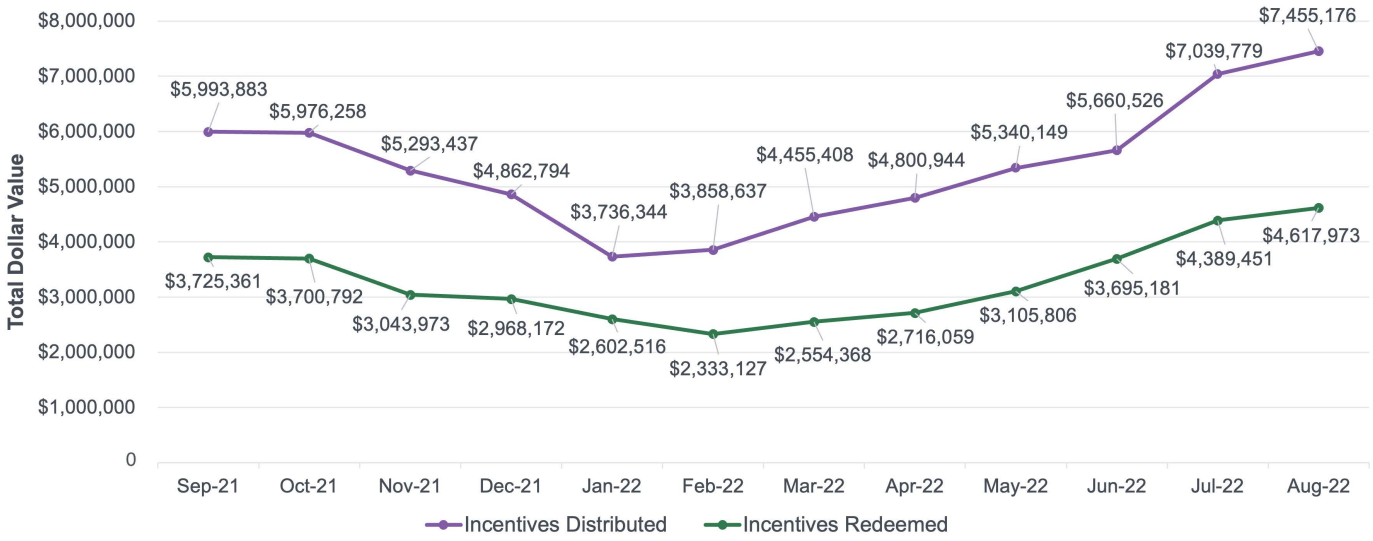
Eligible Products	Definitions and Examples
All SNAP-eligible items	An incentive model where participants can earn incentives on any SNAP-eligible item (typically in FD settings), not just FVs. Redemption on non-FV items is not allowable under GusNIP.
Fresh FVs only	An incentive model where participants can earn/redeem incentives 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 on FVs that are grown locally or regionally.

NI Sales and Transactions

In Y3, $65,024,589 in incentives were distributed to NI project participants through a variety of instruments (e.g., loyalty cards, tokens, vouchers). In total, $39,639,332 in incentives were redeemed across 2,928 NI project sites, with an average of $13,830 incentives redeemed per site (**Table A7**). This equates to a 61.0% total redemption rate (the sum of incentives distributed divided by the sum of incentives redeemed across all grantees) and a 91.6% mean redemption rate (average of the redemption rates for each grantee) across all sites (**Table A7**).

The GusNIP NTAE supports grantees to improve redemption through tailored TA. This support has resulted in strong mean redemption rates over time (Y1 = 89.6%; Y2 = 78.8%; Y3 = 91.6%). Incentives might not be redeemed for various reasons including not spending the full dollar amount of incentives earned since participants may earn more money in incentives than they can spend on FVs in a given week or month, misplacing incentives, not noticing they received incentives, and transportation barriers (e.g., no personal vehicle and/or limited public transportation) to food retail outlets. Among NI projects, incentive distribution was lowest in January 2022 ($3,736,344) and incentive redemption was lowest in February 2022 ($2,333,127; **Figure 7**). Both distribution and redemption of incentives were highest in August 2022 ($7,455,176 and $4,617,973, respectively; **Figure 7**). The summertime peak for incentive distribution and redemption is expected given that many FD sites operate seasonally (60% of NI projects were FD) to align with growing and harvesting seasons across the U.S.

Figure 7. Distribution and Redemption in Dollars for NI Programs (2021-2022)



NI Nutrition Education, Support Services and Marketing Activities

Many NI projects pair incentives with nutrition education resources for purchasing, preparing and eating FVs, support services that complement NI projects, as well as marketing activities to promote and generate awareness for NI projects (see **Table 3** on the next page for definitions). A total of 1,187 sites offered various types of nutrition education across NI projects (**Table A4**). Among NI sites that offered nutrition education, the most common nutrition education activities included: "cooking demonstrations" (n = 1,038, 87.4%), "partnering with other agencies offering nutrition education" (n = 308, 25.9%), "food navigation and/or tours" (n = 174, 14.7%), "e-interventions" (n = 126, 10.6%), "other nutrition education"[11] (n = 105, 8.8%), and "one-on-one or small group nutrition education" (n = 95, 8.0%; **Table A4**).

In total, 1,000 NI project sites offered support services intended to enhance incentive redemption. Support services included "produce delivery and transportation services" (n = 658, 65.8%), "referrals to help participants access other needed resources" (n = 365, 36.5%), "COVID-19 testing and/or vaccination" (n = 131, 13.1%), "voter registration and other civic engagement" (n = 90, 9.0%), "other support services"[12] (n = 69, 6.9%), and "health fairs and other community building activities" (n = 45, 4.5%; **Table A5**).

Marketing was conducted at sites to promote NI projects. The most common marketing activities included the use of "on-site signage or announcements" (n = 2,055, 77.6%), followed by "direct promotions distributed by mail, email or phone" (n = 1,385, 52.3%), "online advertisements through social media, website, apps" (n = 1,207, 45.6%), "multi-lingual promotions" (n = 650, 24.5%), "directories" (n = 222, 8.4%), and "other marketing activities"[13] (n = 57, 2.2%; **Table A6**).

[11] Other responses for nutrition education included items such as: gardening education, children specific programming, nutrition education including physical activity, canning and preserving, etc.

[12] Other responses for support services included items such as: promotion of other programs, skill building (e.g., computer classes), behavioral health screenings, etc.

[13] Other responses for marketing activities included items such as: special events, promotion with partnering agencies (e.g., senior's center, food banks, neighborhood associations), etc.

Table 3. 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 individually or in group settings.
Partnering nutrition education	Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) offer educational programming.
Cooking demonstrations	Food demonstrations, taste testing and recipe sharing.
Food navigation/tours	Tours for participants around the food outlet, demonstrating 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 NI program locations.
Voter registration and other civic engagement	Activities that support civic life 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) made 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), as well as public relations and events.
Multi-lingual promotions	Promotions of any type that were translated into languages other than English.
Online advertisements	Advertisements posted online and mobile apps, or search engine optimization.
Directories	List of resources available in the community.

NI Participant-Level Outcomes

Among NI grantees with active projects,[14] 51 NI projects collected participant-level data in Y3.[15] For the purposes of this report, NI participant results include data collected during Y3 only.

The resulting participant-level sample had representation across the four regions of the U.S. as defined by NIFA, but with a greater number of surveys collected in the Western region (39.6% of the NI sample; **Table 4**). Distribution of surveys across geographic regions is influenced by the number of active NI projects in each region and by projects providing different numbers of surveys based upon their awards, program goals and capacity. All NI participant-level results tables can be found in **Appendix 6.**

NI Sociodemographic Characteristics

In Y3, NI grantees collected surveys from a total of 7,641 participants. The sample size collected from each grantee ranged from 7 to 422 participants, with an average of 150 surveys collected per NI project. The survey was collected from a diverse sample of NI participants. Most NI participants identified as female (73.1%), White (51.2%) or Black or African American (17.7%), and Non-Hispanic or Latino/a/x (75.4%), with a mean age of 45 years (**Table A8**). The NI sample includes a greater proportion of females (73.1%) than the U.S. population (50.5% of U.S. population is female) and a greater proportion of communities of color (75.8% of U.S. population is white).[16] A small percentage of NI participants identified as non-binary/third gender (2.4%) or selected "prefer to self-describe" (0.6%) when asked about their gender (**Table A8**). For comparison, national data on the characteristics of SNAP participants in 2019 reported that overall SNAP participants were: 36.5% White, 25.8% Black or African American and 16.0% Hispanic.[17]

Demographic differences between the NI population, the U.S. population, and the SNAP population reflect the aim of NI projects to support communities of color with low income and family grocery shoppers who tend to be female.

Table 4. Number of NI Surveys Collected Across U.S. Regions[1]

Region	N (%)
Western	3,027 (39.6%)
North Central	1,919 (25.1%)
Southern	1,481 (19.4%)
Northeast	1,219 (15.9%)
Total	**7,646**

[1] Regions defined by NIFA

However, it should be noted that reported sociodemographic characteristics of the NI participant sample may reflect the sociodemographic characteristics of those who completed the survey rather than the overall sociodemographic characteristics of NI program participants. Sociodemographic characteristics by B&M and FD site types where NI participants spent incentives are also displayed in **Table A8**.

[14] All grantees with active projects except for pilot projects are expected to collect participant-level surveys.

[15] The number of projects with surveys by award type: GusNIP NI = 37; GusCRR NI = 14.

[16] American Community Survey 2020 vintage 5-year estimates.

[17] U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2019, by Kathryn Cronquist. Project Officer, Barbara Murphy. Alexandria, VA, 2021.

NI Food Security

Food insecurity was assessed using the U.S. Household Food Security Survey Module: Six-Item Short Form.[18] Of the 7,370 NI survey participants who completed the food security questions, 3,399 (46.1%) participants reported being food secure and 3,971 (53.9%) participants reported being food insecure (**Table A9**). Dose (length of NI participation) is a proxy measure from a cross section of participants who indicated they were using the NI program for the first time or, if not, for how long they have been using the NI program. When food insecurity levels were examined by dose (**Figure 8**), those with longer participation in the NI project (six months or more) reported lower food insecurity levels (49.5%) when compared to those with less than six months of participation (55.4%) and first-time participants (63.4%).

There were several sociodemographic groups that reported higher food insecurity than the overall rate of food insecurity (53.9%) in the NI sample (**Table A9**). Of note, individuals 45 to 64 years of age reported a higher rate of food insecurity (59.7%) when compared to other age groups (**Table A9**). In addition, those who identified as Hispanic or Latino/a/x ethnicity reported a higher rate of food insecurity (62.1%) compared to Non-Hispanic or Latino/a/x/ ethnicity and those who responded "prefer not to answer" when asked about their race (**Table A9**).

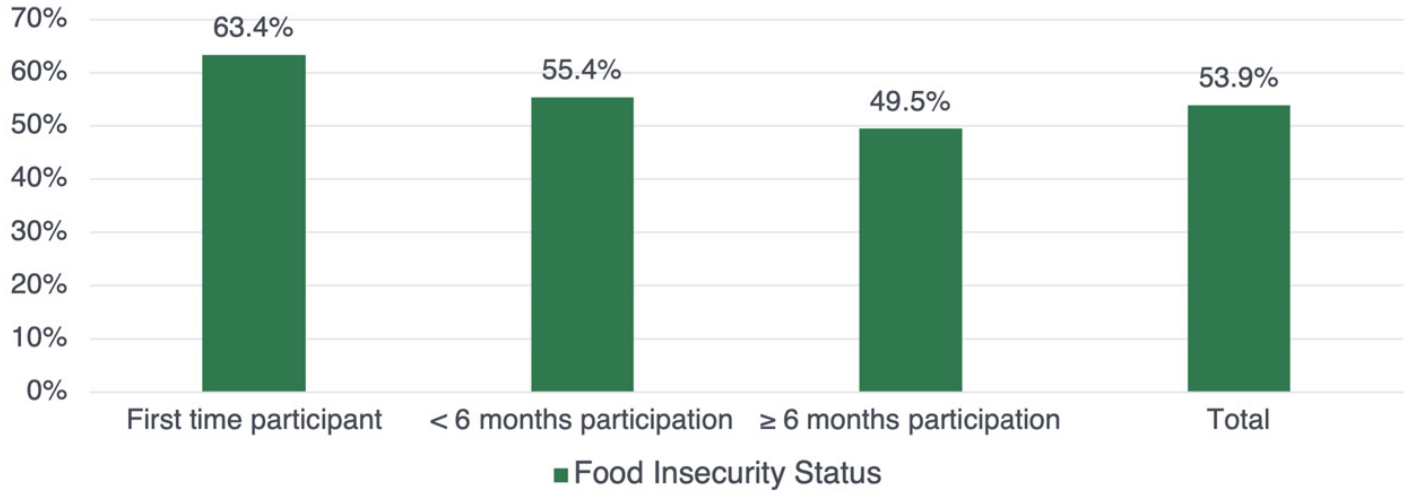
Native Hawaiian (69.9%) and American Indian or Alaskan Native (65.0%) tended to report higher rates of food insecurity when compared to other racial categories (**Table A9**). See **Table A9** for more details on the distribution of food insecurity rates across other sociodemographic characteristics.

Ability to afford more FVs:

> *"Sometimes when I shop at the supermarket, I pick up something and put it back because it's too expensive. At the [NI project food retail outlet] you can feel free to spend what you have. At other supermarkets you don't know how to stretch the dollar. You have to put back things you could really use and sacrifice things for your body."*

Northeast region NI project participant

Figure 8. Food Insecurity Levels Across NI Projects by Participation Length (2021-2022)



[18] Food security includes participants reporting high food security or marginal food security. Food insecurity includes participants reporting low food security or very low food security.

NI Fruit and Vegetable Intake

The 2020 to 2025 U.S. Dietary Guidelines for Americans (DGA) recommends consuming 2 to 3 cups of vegetables and 1.5 to 2 cups of fruit each day for a total of 3.5 to 5 cups of FVs per day.[19] Due to the cost of purchasing FVs, achieving adequate FV intake can be challenging for households with low income. A primary goal of GusNIP is to increase FV intake among participants.

FV intake for all NI survey respondents were calculated using the 10-item DSQ (described in **Appendix 3**). On average, NI participants reported consuming 1.10 cups of fruit and 1.65 cups of vegetables daily, equaling a total of 2.73 FVs cups/day (**Table A10**). Participants who identified as male reported higher FV intake than participants who identified as female (2.99 FVs cups/day for males vs. 2.66 FVs cups/day for females). Participants who classified their race as other (2.88 FVs cups/day **Table A10**) also reported higher intake of FVs compared to other groups. Participants aged 18 to 24 (2.58 FVs cups/day) reported the lowest FV intake among all groups. Among all NI participants, the range of FV intake across geographic regions was 2.65 to 2.79 FVs cups/day (**Table A10**).

When asked about gender, a subset of NI participants identified as non-binary or third gender, preferred to self-describe or preferred not to answer, but also reported FV intake data. Because the DSQ algorithm used to calculate FV intake requires identification of male or female gender, frequencies of intake across DSQ survey items among non-binary/third gender individuals are reported in **Table A11**.[20]

Among NI participants for whom a daily cup equivalent of FVs could not be calculated, 22.4% reported eating fruit "2 or more times per day," and 23.2% reported eating vegetables "2 or more times per day" (**Table A11**).

Overall, NI participants reported higher intake of vegetables (1.65 cups/day) versus fruit (1.10 cups/day; **Table A10**). These values are greater than the reported intake levels of the average U.S. adult of 1.57 cups/day of vegetables and 0.96 cups/day of fruit.[21] Participants reporting from all retail sites (i.e., FD, B&M, unspecified) and across all lengths of participation (i.e., first time, less than six months, six months or more) consumed an average of 2.73 FVs cups/day. **After excluding first-time participants, the average intake among NI participants was 2.78 FVs cups/day, which is 0.25 FVs cups/day more than the average U.S. adult (2.53 FVs cups/day).** NI participants who shopped at FD sites reported higher amounts of FV intake (2.83 cups/day) when compared to B&M sites (2.63 cups/day). Although this differs from GusNIP NTAE Y2 findings, it aligns with previous literature that demonstrates slightly higher FV intake from FD sites when compared to B&M sites.[22,23]

Importantly, across all retail sites, NI participants who reported redeeming incentives for six months or more reported higher FV intake (2.86 FVs cups/day) than those who reported redeeming incentives for less than six months (2.66 FVs cups/day) or redeeming incentives for the first time (2.61 FVs cups/day). NI participants at FD (2.92 FVs cups/day) and B&M (2.75 FVs cups/day) sites who reported redeeming incentives for six months or more, reported higher FV intake than those who reported redeeming incentives for less than six months (2.77 FVs cups/day at FD and 2.56 FVs cups/day at B&M) or redeeming incentives for their first time (2.66 FVs cups/day at FD and 2.54 FVs cups/day at B&M; **Figure 9**). **The GusNIP Y3 results demonstrate a higher FV intake among those utilizing the program for six months or more when compared to first-time participants (+0.21 FVs cups/day at B&M, +0.26 FVs cups/day at FD, and +0.25 FVs cups/day at all retail sites).** NI participants also reported higher FV intake than the average U.S. adult. These results are particularly meaningful given that prior research demonstrates a dose-response relationship between FV intake and health (i.e., increases in FV intake lead to a protective impact on health).[24]

[19] United States Department of Agriculture and United States Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Edition. December 2020. Available at: DietaryGuidelines.gov.

[20] The GusNIP NTAE is actively working to address issues of diversity, equity, and inclusion in shared measures, which includes that the DSQ algorithm excludes the calculation of non-female/male responses.

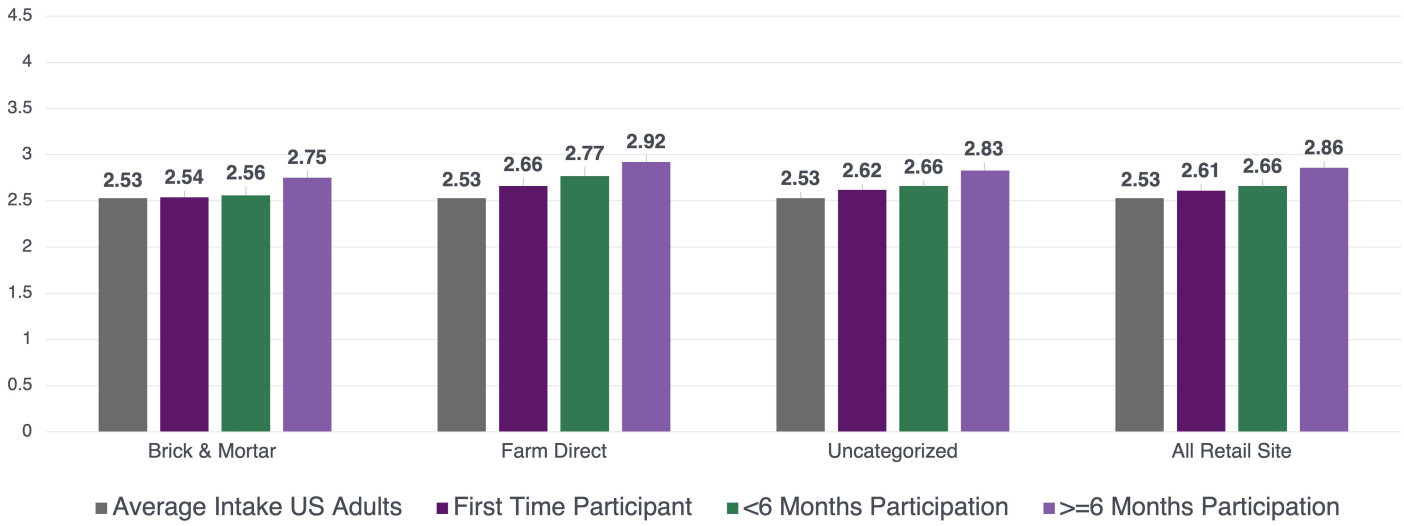
[21] Young, S., Guthrie, J., Lin, B-H. Food consumption and nutrient intakes. USDA ERS - Food Consumption and Nutrient Intakes. 2021. Available at: https://www.ers.usda.gov/data-products/food-consumption-and-nutrient-intake

[22] Jilcott Pitts, S.B., Gustafson, A., Wu, Q., et al. Farmers' market use is associated with fruit and vegetable consumption in diverse southern rural communities. *Nutrition Journal.* 2014;13,1.

[23] Hu, X., Clarke, L.W., Zendehdel, K. Farmers' market usage, fruit and vegetable consumption, meals at home and health–evidence from Washington, DC. *Sustainability.* 2021;13(13):7437.

[24] Bellavia, A., Larsson, S.C., Bottai, M., et al. Fruit and vegetable consumption and all-cause mortality: A dose-response analysis. *The American Journal of Clinical Nutrition.* 2013;98(2):454-9.

Figure 9. Average Daily FV Cup Equivalents Among NI Participants by Site Type (2021-2022)



Perceived Health

FV intake is related to better health outcomes.[25] Thus, NI participants were asked to self-report whether their health was "poor," "fair," "good," "very good" or "excellent." NI participants were most likely to perceive their health as "good" (39.3%), followed by "fair" (27.8%) and "very good" (19.3%; **Table A12**). Individuals who participated for six months or more reported "very good" and "excellent" health at a slightly higher rate (27.2%) than those who participated for less than six months (26.5%), both of which are higher than first-time participants (21.5%; **Table A12**). These results indicate that longer-term participation in NI projects is associated with improved self-perception of health among participants.

Considering that single-item assessments of perceived health have been consistently associated with morbidity[26] and mortality risk[27] and have been used as a proxy for actual health,[28] the impact of NI projects on perceived health is promising. These results provide further evidence that NI projects address health disparities since people living below the federal poverty level report "fair" or "poor" health status more often than people with higher income levels.[29]

Potential for positive health impacts:

> *"You will be able to buy things that are good for your body which before you were kind of ignoring because you didn't have the money. Now, we will start eating healthier and maybe live longer."*

Northeast region NI project participant

[25] Wallace, T.C., Bailey, R.L., Blumberg, J.B., et al. Fruits, vegetables, and health: A comprehensive narrative, umbrella review of the science and recommendations for enhanced public policy to improve intake. *Critical reviews in food science and nutrition.* 2020;60(13):2174-211.

[26] Latham, K., Peek, C.W. Self-rated health and morbidity onset among late midlife U.S. adults. *J Gerontol B Psychol Sci Soc Sci.* 2013;68(1):107-116.

[27] DeSalvo, K.B., Bloser, N., Reynolds, K., et al. Mortality prediction with a single general self-rated health question. *Journal of general internal medicine.* 2006;21:267-75.

[28] Centers for Disease Control and Prevention. Measuring Healthy Days. Atlanta, Georgia: CDC, November 2000.

[29] Health Status - Health, United States. Published August 8, 2022. Available at: https://www.cdc.gov/nchs/hus/topics/health-status.htm

Other NI Program Impacts

Among all NI participants, program satisfaction was high in Y3 with **87.8% of participants indicating they felt "positively" or "very positively" about the NI project they participated in** (**Table A13**). This represents an increase in program satisfaction from Y2 (76.4%). Similar to Y2, program satisfaction was particularly high among FD participants with 93.4% reporting they felt "positively" or "very positively" about the NI project that they participated in. Comparatively, 85.6% of B&M participants reported they felt "positively" or "very positively" (**Table A13**). This discrepancy may be due to characteristics associated with the setting (FD vs. B&M) rather than characteristics associated with the NI project. For instance, FD sites may be less accessible, but more community-oriented with visually appealing, local produce as compared to B&M sites. Across all NI participants, only a small proportion (0.5%) reported "very negative" experiences with the NI project (**Table A13**). This is lower than the 3.4% of all NI participants who reported "very negative" experiences in Y2.

The COVID-19 pandemic impacted NI project participants. The majority of participants (55.6%) reported that the COVID-19 pandemic resulted in the utilization of emergency food outlets (e.g., food pantries, mobile food distributions, free meal/grocery deliveries) (**Table A14**). Additionally, across all NI participants, most participants (59.0%) reported "agree" or "strongly agree" that the COVID-19 pandemic made it hard to make ends meet (**Table A14**).

Participation in NI projects seemed to mitigate some of the impact of COVID-19 on food access. For example, individuals participating in these projects for the first time were more likely to "agree" or "strongly agree" that the COVID-19 pandemic made it hard to purchase FVs (44.6% compared to the total NI sample reporting 40.7%; **Table A14**).

Produce Prescription Program (PPR) Outcomes

PPR Site-Level Outcomes

In Y3, 25 grantees (10 GusNIP and 15 GusCRR) operated PPR projects. All PPR projects awarded during 2019, 2020, or 2021 and active during Y3 were required to report site-level core measures to the GusNIP NTAE. See **Appendix 4** for a description of the methods and measures used for site-level reporting and **Appendix 8** for all PPR site-level outcome tables.

PPR Site Types

A total of 913 PPR sites (FD = 105; B&M = 630; clinic = 178) expanded access to FVs through incentives (**Figure 10**). Of Y3 PPR sites, 143 utilized GusCRR funding. Active PPR sites are defined as locations where FV incentives were distributed or redeemed or where participants were enrolled. Most often, incentives were distributed at clinic sites via a prescription and redeemed at FD or B&M sites. However, three clinics also hosted mobile markets where participants could redeem incentives for FVs and a few FD/B&M sites distributed incentives. Nearly three-quarters of Y3 PPR sites were B&M sites (69.0%); an increase from the proportion of PPR B&M sites in Y1 (39.4%) and Y2 (53.9%). The remaining Y3 PPR sites were FD (11.5%) and clinics (19.5%; **Figure 10**). A majority of PPR sites (85.1%) served urban populations, while 12.4% served rural populations and 2.6% served tribal populations (**Figure 11**).

Figure 10. PPR Project Site Types (2021-2022; n = 913)

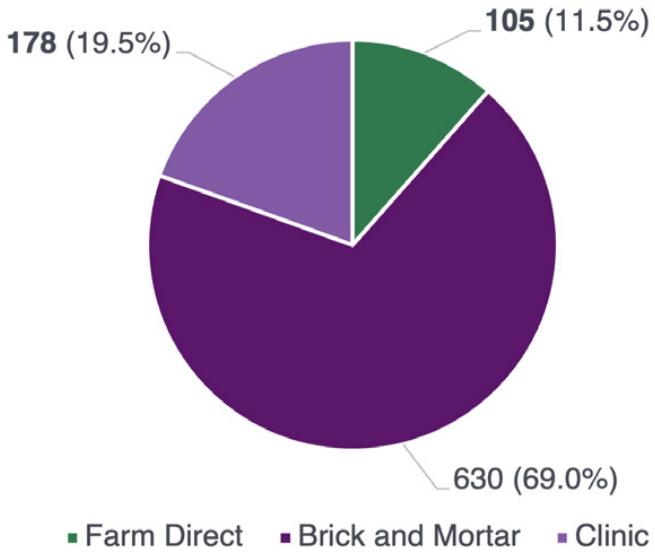
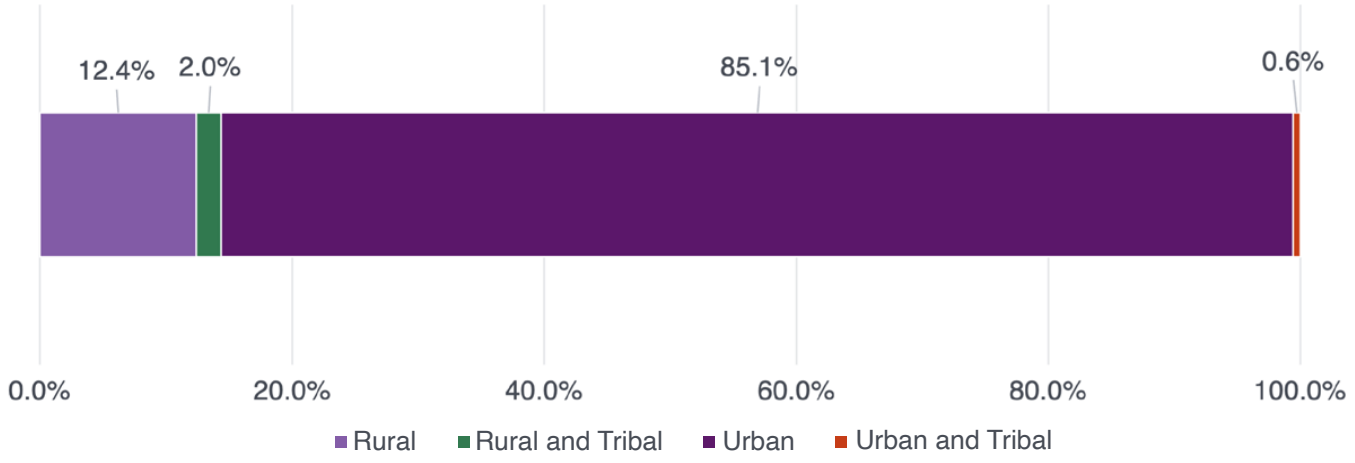


Figure 11. Populations Served by Site Service Areas Among PPR Projects (2021-2022; n = 898)



During Y3, newly added PPR projects contributed to an overall increase in the number of sites in operation. For PPR projects, the number of participating B&M and FD sites grew progressively month-to-month, while the number of clinics remained steady (**Figure 12**). The number of PPR sites decreased when one large PPR project (started in 2019) concluded in August 2022.

PPR Reach to Underserved Communities

PPR projects operated in site locations across the country with high levels of people experiencing poverty. **PPR sites operate in communities where, on average, 14.8% of community members live below the poverty level, compared to 11.4% nationally.**[30,31] However, PPR sites may serve a higher percentage of people experiencing poverty as participants often travel outside of their neighborhoods to visit a health care provider.

Figure 13 (next page) shows the reach of PPR sites across the country by poverty at the county level. For a more detailed view, see regional maps and state-level poverty reach estimates in **Appendix 7**.

[30] Shrider, A., Kollar, M., Chen, F., et al. U.S. Census Bureau, Current Population Reports, P60-273, *Income and Poverty in the United States: 2020*. U.S. Government Publishing Office, Washington, DC, September 2021.

[31] County-level poverty estimates are from the American Community Survey 2020 vintage 5-year estimates.

Figure 12. Total Number of Sites Participating in PPR Projects by Month of Operation (2021-2022)

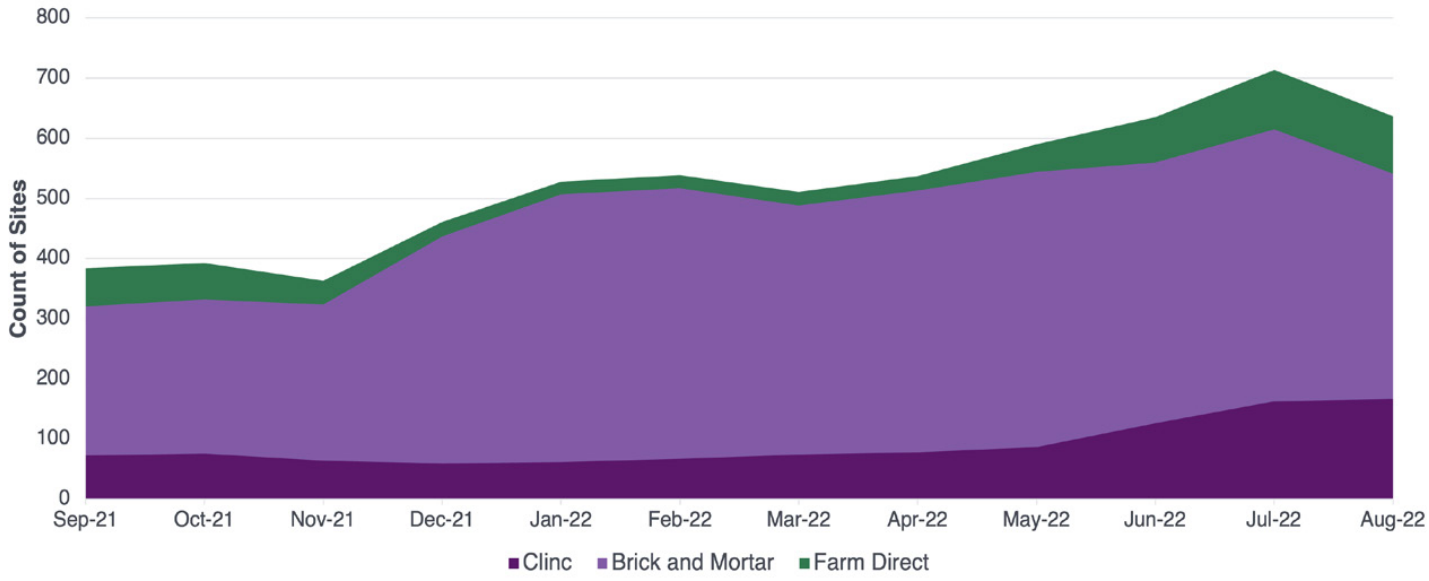
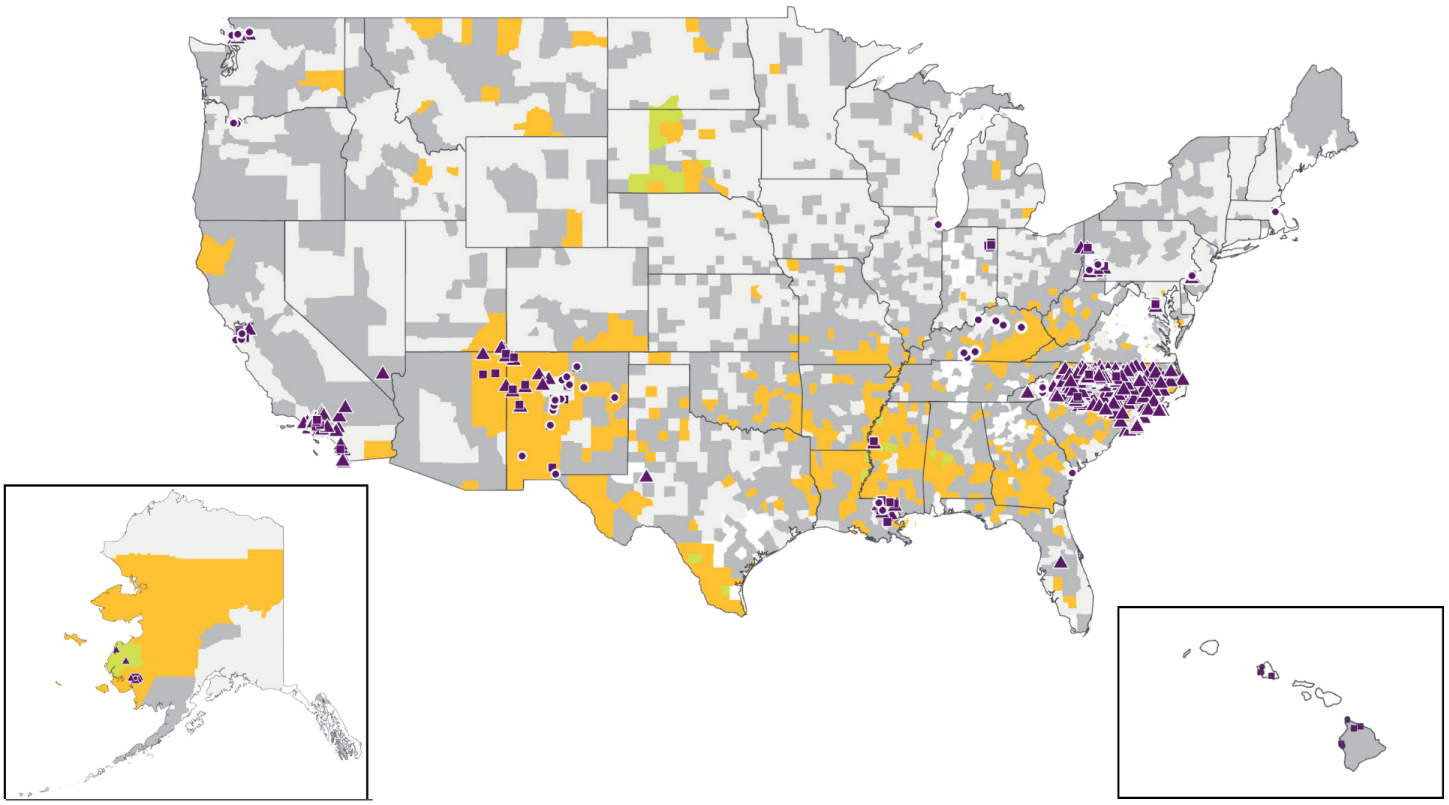


Figure 13. PPR Site Location by Poverty Level (2021-2022)



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations
- ■ Clinic Site Locations

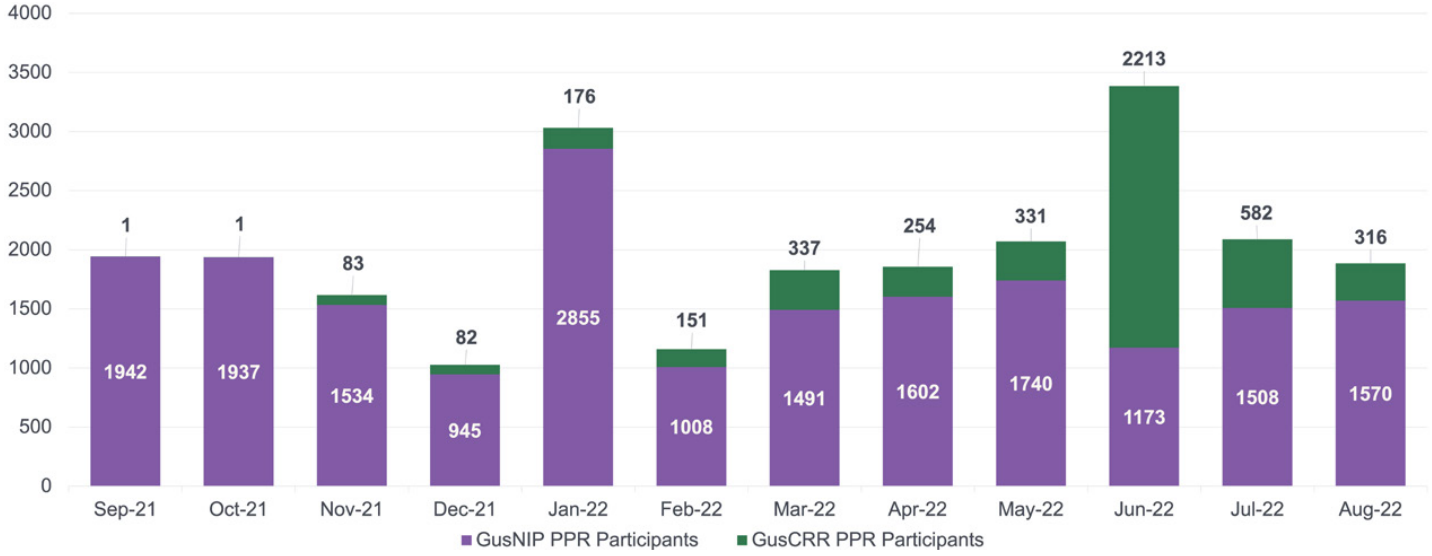
American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

PPR Reach to Participants

Reach is the number of participants that PPR projects serve at a given time. To estimate reach, PPR sites are asked to report the number of newly enrolled participants each month (see PPR Eligibility section for details about enrollment). **Figure 14** provides estimates of the number of newly enrolled PPR participants reached each month during Y3. On average, there were **1,986 newly enrolled PPR participants reached monthly** during Y3. In total, 23,832 PPR participants were enrolled during Y3 (19,305 in GusNIP projects and 4,527 in GusCRR projects; **Figure 14**).

Figure 14. Total Number of Enrolled PPR Participants in Y3 by Award Type[1]



[1] In Y3, a total of 23,832 people were enrolled in PPR projects. 19,305 PPR participants were involved in projects funded by GusNIP and 4,527 were involved in projects funded by GusCRR. An average of 1,986 newly enrolled participants were reached each month.

PPR Financial Instruments and Models

PPR incentives are distributed and redeemed using different financial instruments, such as loyalty cards, tokens or vouchers (see **Table 5** below for definitions). In PPR projects, an incentive is distributed via a prescription instead of being triggered by eligible foods as in NI projects. In the context of PPR projects, the terms "incentive" and "prescription" can be used interchangeably. The type of financial instrument used to distribute and redeem incentives for PPR projects varied among FD, B&M, and clinic sites. Across all PPR projects, the most common instrument for incentive distribution and redemption was "paper or vouchers" (n = 113, 66.9%), followed by "loyalty card accounts" (n = 22, 13.0%; **Table B1**). A smaller proportion of PPR projects reported using other financial instruments such as "CSA share or produce box" (n = 12, 7.1%) and "tokens" (n = 10, 5.9%; **Table B1**). Some sites use multiple financial instruments for incentives, therefore categories are not mutually exclusive. See **Appendix 8** for all PPR site-level tables.

Table 5. Definitions and Examples of Financial Instruments

Financial Instruments	Definitions and Examples
Token	The incentive (i.e., prescription) is a physical item typically provided in farmers market settings when a PPR participant presents their prescription at a central location.
Paper vouchers or coupons	The incentive (i.e., 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 (i.e., prescription) is integrated into a site's loyalty program through a physical card or unique account number (e.g., phone 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 (i.e., prescription) is an automatic discount provided at the point of sale.
CSA share or produce box	The incentive (i.e., prescription) is provided to PPR participants in the form of a weekly or monthly CSA share or produce box.

All sites associated with PPR projects designated eligible items that qualified for PPR incentive redemption (see **Table 6**). Unless a grantee receives an exemption from USDA, only fresh FVs are eligible within PPR projects. Grantees may seek an exemption to accommodate cultural preference, seasonality and accessibility of FVs in their geographic area. Grantees can further limit what is eligible for redemption within their project.

The most common FVs eligible for incentive redemption were "all FVs (fresh, canned, frozen, dried, plants, and/or seeds)" (n = 419, 58.0%) and "fresh FVs only" (n = 237, 32.8%; **Table B2**). A smaller proportion of PPR sites included "only state or regionally grown FVs" as eligible for incentive redemption (n = 57, 7.9%; **Table B2**). B&M stores primarily offered "all FVs (fresh, canned, frozen, dried, plants, and/or seeds)" (n = 417, 67.9%) while FD sites primarily offered both "fresh FVs only" (n = 49, 46.7%) and "only state or regionally grown FVs" (n = 55, 52.4%; **Table B2**). PPR clinic sites enroll participants and sometimes host mobile markets where participants can redeem incentives. Accordingly, three PPR clinics reported data on FVs eligible for incentive redemption. Responses are displayed in **Table B2**.

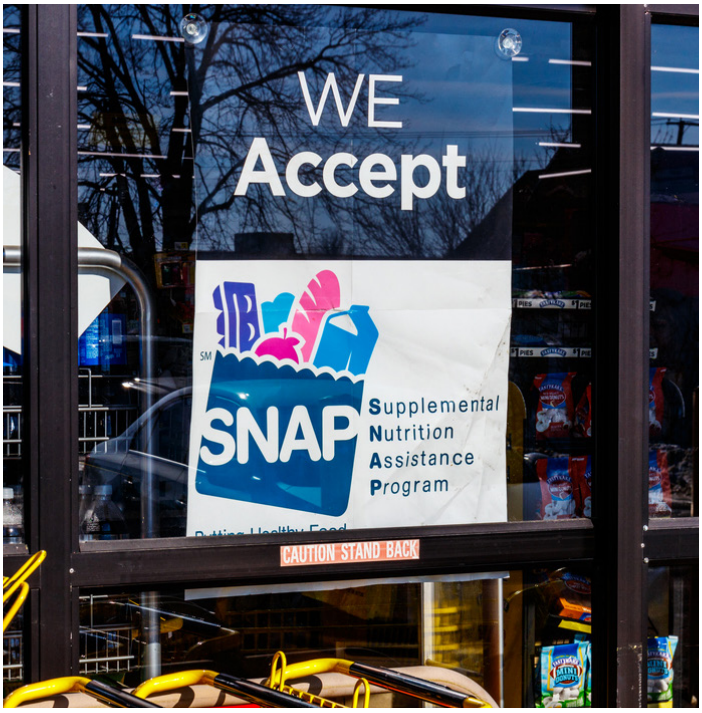


Table 6. Definitions and Examples of Eligible Products for Redeeming Incentives

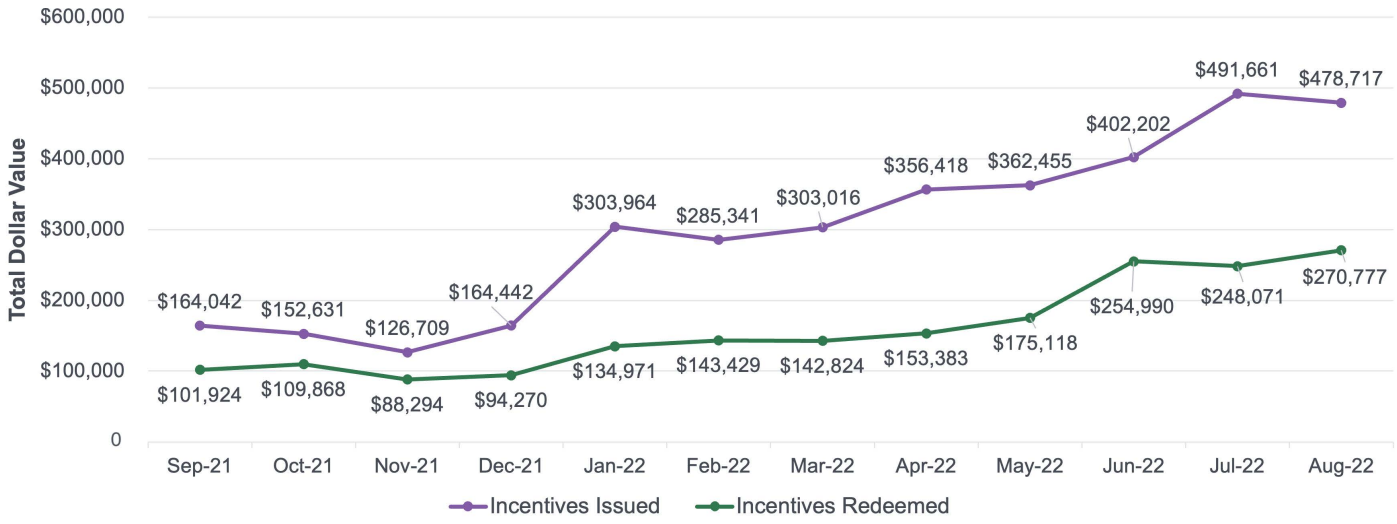
Eligible Products	Definitions and Examples
Fresh FVs only	An incentive model where participants can redeem incentives (i.e., prescriptions) on the purchase of fresh FVs only.
All FVs (fresh, canned, frozen, dried, plants, and/or seeds)	An incentive model where participants can redeem incentives (i.e., prescriptions) 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 redeem incentives (i.e., prescription) on FVs that are grown locally or regionally.

PPR Sales and Transactions

A total of $1,917,917 in incentives were redeemed across 913 PPR project sites, with an average of $2,246 incentives redeemed per site (**Table B3**). A total of $3,591,599 in incentives were distributed via a prescription, equaling a 53.4% total redemption rate (the sum of incentives distributed divided by the sum of incentives redeemed across all grantees) and a 71.4% mean redemption rate (average of the redemption rates for each grantee) across all sites (**Table B3**). Among PPR projects, both incentive distribution ($126,709) and redemption ($88,294) were lowest in November 2021(**Figure 15**).

PPR incentive distribution was highest in July 2022 ($491,661) and redemption was highest in August 2022 ($270,777; **Figure 15**). PPR project incentive distribution and redemption are expected to be at their lowest during winter months. During winter months, clinics typically address seasonal infectious disease-related issues (e.g., diagnostics, treatment, vaccines), which may limit their capacity to implement PPR projects. As additional clinics were onboarded in early 2022 and FD sites became more active, there was a steady increase in incentive distribution and redemption during the spring and summer months of 2022.

Figure 15. Distribution and Redemption in Dollars for PPR Projects (2021-2022)



PPR Nutrition Education, Support Services and Marketing Activities

Many PPR projects pair incentives with nutrition education resources for purchasing, preparing, and eating FVs, support services that complement PPR projects, as well as marketing activities to promote and generate awareness of PPR projects (see **Table 7**). A total of 199 PPR project sites offered one or more nutrition education activities in Y3 (**Table B4**). The most common nutrition education activities offered at sites included “cooking demonstrations” (n = 179, 89.9%), “one-on-one or small group nutrition education” (n = 114, 57.3%), “partnering nutrition education” (n = 54, 27.1%), “e-interventions” (n = 42, 21.1%), and “food navigation or tours” (n = 30, 15.1%; **Table B4**).

Other services commonly provided in addition to nutrition education are referred to as support services. Support services in conjunction with PPR projects included “home delivery of produce and transportation services” (n = 216, 67.7%), “resource referrals” (n = 120, 37.0%), “COVID-19 testing and vaccination” (n = 117, 36.1%), “voter registration and other civic engagement” (n = 30, 9.3%), and “health fairs and other community building activities” (n = 24, 7.4%; **Table B5**).

Marketing activities are designed to encourage eligible audiences to enroll or promote ongoing participation in a PPR project. Of the 213 PPR sites that offered marketing activities, the most reported activity was “on-site signage or announcements” (n = 129, 60.6%), followed by “direct promotions distributed by mail, email, or phone” (n = 101, 47.4%), “multilingual promotions” (n = 47, 22.1%), and “public promotions” (n = 43, 20.2%; **Table B6**). **Table B6** displays counts of various marketing activities used to promote PPR projects.

Table 7. 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 individually or in group settings.
Partnering nutrition education	Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) offer educational programming.
Cooking demonstrations	Food demonstrations, taste testing, and recipe sharing.
Food navigation or tours	Tours for participants around the food outlet, demonstrating 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 PPR program locations.
Voter registration and other civic engagement	Activities that support civic life in the community such as voter registration.
COVID testing or 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) made 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), as well as public relations and events.
Multi-lingual promotions	Promotions of any type that were translated into languages other than English.
Online advertisements	Advertisements posted online and mobile apps, or search engine optimization.
Directories	List of resources available in the community.

PPR Eligibility

Typically, PPR projects reach populations that have limited access to health care and will benefit from PPR incentives and associated services (e.g., nutrition education) to improve health. PPR projects must set eligibility requirements for participants to enroll. In order to be eligible for GusNIP PPR projects, potential participants must already be eligible for SNAP *or* enrolled in medical assistance (e.g., Medicare or Medicaid) and currently have or be at risk for a diet-related health condition. It is important to note that screening positive for food insecurity is considered a risk factor for a diet-related health condition. Grantees can further define eligibility criteria.

Most PPR project enrollment sites had multiple eligibility criteria. The most common eligibility criteria among PPR project enrollment sites were "screen positive for a chronic health condition" (n = 151, 83.4%), "screen positive for food insecurity" (n = 131, 72.4%), "Medicaid or Medicare participant" (n = 123, 68.0%), and "adult" (n = 113, 62.4%; **Figure 16**; **Table B7**). Among clinics using diagnosis of a chronic health condition as an eligibility criterion, the following conditions were included:[32] "diabetes" (n = 145, 96.7%), "pre-diabetes" (n = 133, 88.7%), "hypertension" (n = 126, 74.0%), "cardiovascular disease" (n = 109, 72.7%), and "obesity" (n = 73, 48.7%; **Table B7**). As these results indicate, PPR projects are clearly supporting populations that are most likely to benefit from FV prescriptions.

Enrollment positively influenced participant health:

> *"I want my grandchildren to grow up and already know about this healthy eating and living so they don't have to go through the struggles I'm going through."*

Southern region PPR project participant

PPR Participant-Level Outcomes

PPR projects collect baseline and post surveys from participants throughout the duration of their award. Among PPR projects active during Y3,[33] 31 PPR projects collected baseline participant data and 18 PPR projects collected post participant data.[34] For the purposes of this report, participant results include all baseline and post data collected during Y3 as well as some baseline data collected during Y2. Depending upon the start date of a PPR project, the number of cohorts[35] within a PPR project, and the cohort duration (ranging from 3 to 12 months), baseline to post results may span across multiple award years.

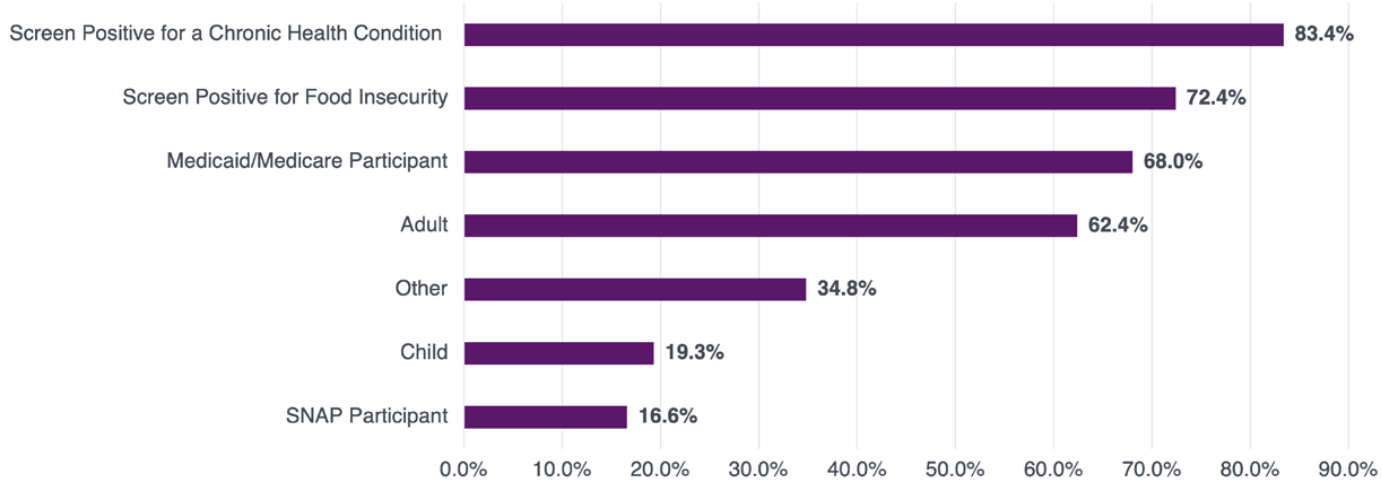
[32] Eligibility criteria are not mutually exclusive because PPR projects can use multiple chronic conditions as eligibility criteria.

[33] All grantees with active projects except for pilot projects are expected to collect participant-level surveys.

[34] The number of projects with surveys by award type: GusNIP PPR Baseline = 21; GusNIP PPR Post = 15; GusCRR PPR Baseline = 10; GusCRR PPR Post = 4.

[35] Many PPR projects enroll participants in groups (i.e., cohorts).

Figure 16. Percentage of PPR Project Enrollment Sites using Various Eligibility Criteria for Enrollment (2021-2022)



In this report, the Y3 Analytic Sample and Y3 Baseline Only Sample are reported. For the Y3 Analytic Sample (n = 949), baseline surveys may have been collected during either Y2 or Y3 and were matched with post surveys collected during Y3. In addition, since many PPR participants completed a baseline survey during Y3 but did not complete a post survey during Y3 due to participation in an ongoing cohort, this sample of participants is reported as the Y3 Baseline Only Sample (n = 4,216).

PPR Y3 Analytic (Baseline-Post) Sample

In total, 949 PPR surveys were collected for the Y3 Analytic Sample of matched baseline and post surveys. When compared to the Y2 Analytic Sample (n = 196), there is a significant increase in the number of surveys included in the Y3 Analytic Sample (n = 949) because several cohorts associated with PPR projects were completed during Y3. The Y3 Analytic Sample represents all four NIFA regions, but with a greater percentage of surveys collected in the Western region (47.1%; **Table 8**). Sample size ranged from 5 to 148 participants per PPR project, with an average of 53 surveys collected per project. All PPR participant results tables can be found in **Appendix 8**. Due to the location of PPR projects, variation in the size and scope of projects, as well as capacity for collecting participant surveys, when interpreting results, it is important to consider that sampling distribution shows greater representation in certain geographic regions or award sites.

Sociodemographic Characteristics

Overall, 18 PPR projects collected baseline and post surveys for Y3, yielding 949 matched pairs for the Y3 Analytic Sample. Sociodemographic characteristics reported at baseline for this sample indicated that most participants were 45 years of age or older (66.3%) with a mean age of 51 years, were female (77.9%), and Non-Hispanic or Latino/a/x (63.2%; **Table B8**). Participants described themselves as Black or African American (27.8%), Other (22.9%), White (19.9%), and Other Pacific Islander (13.4%; **Table B8**). Compared to the Y3 Baseline Only Sample (reported below and in **Table B8**), sociodemographic characteristics of the Y3 Analytic Sample were similarly distributed.

Table 8. Number of Paired Baseline to Post-PPR Surveys Collected Across U.S. Regions Y3 Analytic Sample[1]

Region	N (%)
Western	445 (47.1%)
North Central	149 (15.8%)
Southern	152 (16.1%)
Northeast	199 (21.1%)
Unknown[2]	4
Total	**949**

[1] Regions defined by NIFA
[2] Some participant surveys were not able to be attributed to a region if the participant did not report their zip code

Food Security

Of the subsample that completed both a baseline and post-survey, 908 PPR participants completed the U.S. Household Food Security Survey Module: Six-Item Short Form. At baseline, 66.2% of participants reported food insecurity, while 54.8% of participants reported food insecurity at post-survey (**Figure 17**). **These results demonstrate a meaningful decrease in food insecurity associated with participation in a PPR project.** This change in food insecurity levels of PPR participants from baseline- to post-project participation aligns with results observed in the existing scientific literature regarding the impact of PPR projects on participant food security.[36,37,38] Food insecurity reductions were observed across all sociodemographic groups (**Table B9**).

[36] Jones, L.J., 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. *Current Developments in Nutrition*. 2020;4(8):nzaa109.

[37] Ridberg, R.A., Bell, J. F., Merritt, K.E., et al. A pediatric fruit and vegetable prescription program increases food security in low-income households. *Journal of Nutrition Education and Behavior*. 2019;51(2):224-230.e1.

[38] Aiyer, J.N., Raber, M., Bello, R.S., et al. A pilot food prescription program promotes produce intake and decreases food insecurity. *Translational Behavioral Medicine*. 2019;9(5):922–930.

Figure 17. Food Insecurity Rate at Baseline and Post for PPR Participants (2021-2022)

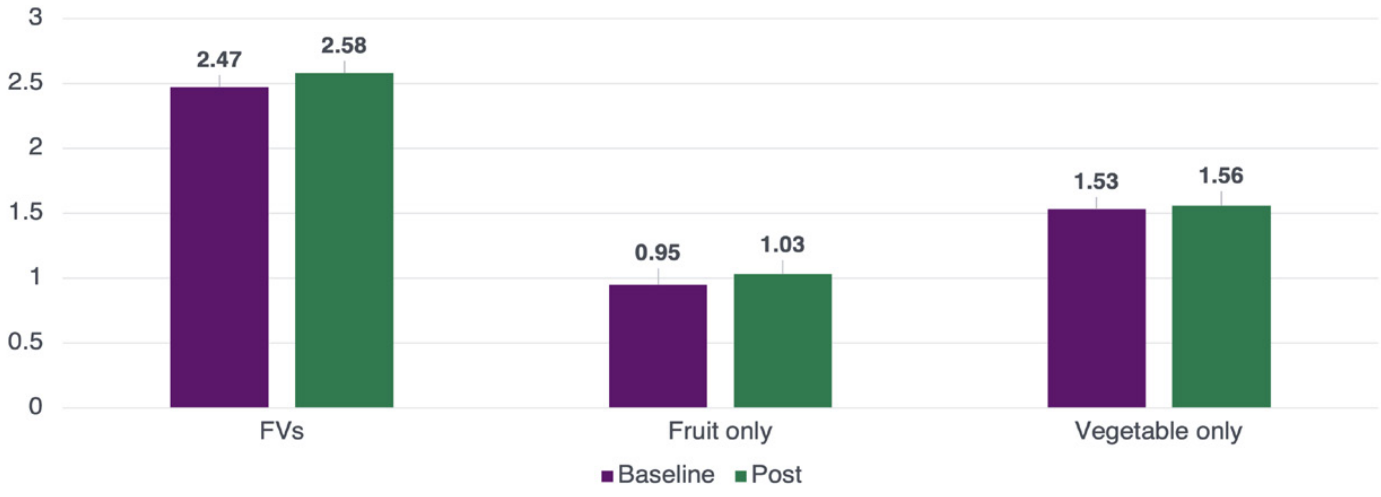
Fruit and Vegetable Intake

Of 836 PPR participants who completed the DSQ for daily FV intake, the mean baseline FV intake was 2.47 FVs cups/day (**Figure 18**). This baseline result falls below the 2020 to 2025 DGA recommendation of 2 to 3 cups of vegetables and 1.5 to 2 cups of fruit each day (3.5 to 5 FVs cups/day). However, it is similar to the Y3 Baseline Only Sample average (2.42 FVs cups/day; **Table B16**). At post-project, 845 PPR participants completed the DSQ for daily FV intake, the mean post FV intake was 2.58 cups/day, a 0.11 FVs cups/day increase. Overall, fruit intake increased by 0.08 cups/day (from 0.95 to 1.03 cups/day) and vegetable intake increased by 0.03 cups/day (from 1.53 to 1.56 cups/day; **Figure 18**). A larger increase in fruit intake as compared to vegetable intake aligns with the Centers for Disease Control and Prevention (CDC) finding that slightly more U.S. adults meet daily recommendations for fruit intake (12.2%) than vegetable intake (9.3%).[39]

Changes in FV intake varied across sociodemographic characteristics. When examined across racial identities, the largest increase (+0.20 cups/day) in FV intake was among individuals who identified as Black or African American (n = 252, 27.7%; **Table B10**). Participants who responded, "prefer not to answer" (n = 54, 5.9%) and "don't know/not sure" (n = 20, 2.2%) when asked about their race also reported an increase of 0.20 FVs cups/day and 0.19 FVs cups/day, respectively (**Table B10**). Conversely, participants who identified as Asian (n = 21, 2.3%) reported a decrease of 0.09 FVs cups/day from pre- to post-assessment (**Table B10**).

[39] Lee-Kwan, S.H., Moore, L.V., Blanck, H.M, et al. Disparities in State -Specific Adult Fruit and Vegetable Intake — United States, 2015. *MMWR*. 2017;66(44):1241-1247.

Figure 18. Average Daily FV Cup Equivalents Among PPR Participants at Baseline and Post (2021-2022)



In terms of changes to FV intake noted in the Y3 Analytic Sample across racial identities, there are promising results that support the effectiveness of PPR projects among Black or African American individuals who typically report lower FV intake when compared to White populations.[40,41] It is important to note that not all racial and ethnicity subgroups had sufficient sample sizes to make meaningful comparisons. Overall, these results suggest that all communities reached by GusNIP PPR projects can benefit from increased access to FVs.

Participants aged 18 to 24 (n = 45, 4.9%) reported the largest increase among all age categories at 0.15 cups/day in FV intake (**Table B10**). Nationally, adults >51 years of age are more likely to meet vegetable recommendations than younger age groups, but no difference is found for meeting fruit recommendations.[40] Participants who identified as male (n = 180, 19.9%) reported a 0.17 cups/day increase in FV intake, a larger increase than reported by those who identified as female (n = 706, 77.9%; 0.10 cups/day increase in FV intake; **Table B10**). Considering that nationally a lower portion of males meet FV recommendations than females, this result is particularly promising.[41] Since the DSQ algorithm used to calculate FV intake requires identification of male or female gender, survey results among non-binary/third gender individuals are reported separately in **Table B11**.[42]

While it is encouraging that FV intake increased among PPR participants in the Y3 Analytic Sample, the average FV intake at post-assessment was still almost 1 cup lower than the recommended daily amount for U.S. adults. While trending in a favorable direction, the observed 0.11 cups/day increase in FV intake among PPR participants is lower than the 0.25 cups/day increase observed among the Y2 Analytic Sample. This discrepancy requires further explanation.

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[40] Lee, S.H., Moore, L.V., Park, S., et al. Adults Meeting Fruit and Vegetable Intake Recommendations — United States, 2019. *MMWR*. 2022;71:1–9.

[41] Hoy, M.K., Clemens, J.C., Martin, C.L., et al. Fruit and vegetable consumption of U.S. adults by level of variety, What We Eat in America, NHANES 2013–2016. *Current Developments in Nutrition*. 2020;4(3):nzaa014.

[42] The GusNIP NTAE is actively working to address issues of diversity, equity, and inclusion in shared measures, which includes that the DSQ algorithm excludes the calculation of non-female/male responses. Due to the small sample of survey participants identifying as non-binary/third gender (9), we do not provide summary statistics.

First, although the 0.11 cups/day change is small, it is statistically significant.[43] Given that prior research demonstrates a dose-response relationship between FV intake and health, it is a meaningful result for PPR projects. Second, change in FV intake from baseline to post assessment varied across PPR projects, ranging from +0.01 to +0.42 FVs cups/day among grantees with more than 10 survey respondents (data not shown). This variability reflects the heterogeneous ways PPR projects are implemented and the diverse populations reached by these projects. For example, PPR models vary in intensity and implementation approach and often include unique added services that influence program effectiveness (e.g., nutrition education, providing transportation). Third, two-thirds of the Y3 Analytic Sample reported food insecurity at baseline. Currently, no matter whether food secure or food insecure, little is known about how incentives are applied to a participant's food purchases. For example, food insecure participants who likely have a very limited food budget may redeem incentives for the same dollar amount of FVs as prior to enrollment in the PPR project and use additional funds to purchase other food items. Given that these findings report the average impact of these projects in aggregate, programmatic and contextual factors that could influence the relationship between PPR participation and FV intake should be considered. It is currently unknown which aspects of PPR models demonstrate the most impact regarding FV intake among diverse participant populations. As such, more investigation that acknowledges project and participant variation is needed.

These preliminary results support the effectiveness of PPR interventions among subpopulations that have typically been underserved. More investigation into the effectiveness of PPR projects across diverse populations, settings, and geographic locations is needed. GusNIP NTAE is cognizant of the knowledge gap and is more deeply exploring these findings through qualitative and quantitative sub-studies. Furthermore, future years of GusNIP PPR project reporting will incorporate more participants pooled across multiple years of data collection. A larger sample may allow the GusNIP NTAE to more precisely identify the elements of program design that are more effective in improving health behaviors and outcomes.

Produce prescriptions positively influenced participant health:

> *"[The doctor] had been talking to me about losing weight and was recommending more vegetables and fruit. When she first started talking to me about that, I wanted to pass out because I couldn't really afford vegetables. It was easier to buy rice. Since eating more fruits and vegetables, I have lost weight and my appetite towards vegetables has changed. I used to eat a lot of sweets and I've learned how to swap out cookies and cakes for apples and oranges. It's much healthier. It helps to have these around the house; otherwise I would default to cookies and cakes."*

North Central region PPR project participant

Perceived Health

Overall, self-reported perceived health status improved between baseline and post assessment across the Y3 Analytic Sample (n = 906 at baseline; n = 940 at post **Table B12**). There was a decrease in the number and proportion of PPR participants who reported "poor" health from baseline (n = 86, 9.5%) to post assessment (n = 62, 6.6%; **Table B12**). The number of participants who answered "fair" at baseline (n = 361, 39.8%) remained relatively consistent at post assessment (n = 364, 38.7%). From baseline to post assessment, there was an increase in participants reporting "good" (at baseline, n = 342, 37.7%; at post, n = 376, 40.0%), "very good" (at baseline, n = 78, 8.6%; at post, n = 89, 9.5%), and "excellent" health (at baseline, n = 33, 3.6%; at post, n = 38, 4.0%; **Table B12**).

[43] Statistical significance means that the results are unlikely to be explained solely by chance or random factors (i.e., the change in FVI can be attributed to the impact of PPR projects).

Perceived health measures capture a global picture of health status that is not tied to any single health condition or diagnosis.[44] Single-item assessments of perceived health are used as a proxy for actual health[44] and have been consistently associated with both morbidity[45] and mortality risk.[46] People living below the federal poverty level also tend to report "fair" or "poor" health status more often than people with higher income levels.[47] To date, PPR impact results on perceived health status are promising. However, preliminary results should be interpreted with caution. Most PPR participants may already have or are at risk for a chronic condition prior to enrollment. In future years, the GusNIP NTAE will work to evaluate changes in health outcomes (e.g., hemoglobin A1c, body mass index) to corroborate findings on self-reported perceived health (see the "Health care Outcomes Future Directions" section below for more information).

Other Program Impacts

The PPR post survey also included a rating of satisfaction with PPR projects. **Most participants (92.7%) felt "positive" or "very positive" about their PPR participation** (**Table B13**). This favorable response to PPR projects across the country is a good indication that specific project characteristics, including outreach and implementation strategies, nutrition education, and support services are meeting the needs of the participants.

Although the impact of the COVID-19 pandemic on overall program operations has lessened with loosening of guidelines and restrictions, there remained an impact on food access during Y3. Over half of PPR participants "agreed" or "strongly agreed" that the COVID-19 pandemic made it hard to make ends meet at both baseline (57.7%) and post assessment (53.1%; **Table B14**). There was a slight increase in the proportion of individuals who "disagreed" or "strongly disagreed" that the COVID-19 pandemic made it hard to make ends meet from baseline (19.4%) to post assessment (24.3%; **Table B14**).

In addition, 47.9% of PPR participants "agreed" or "strongly agreed" that the COVID-19 pandemic made it hard to purchase FVs at baseline and 44.9% at post assessment. There was a slight increase in the proportion of individuals who "disagreed" or "strongly disagreed" that the COVID-19 pandemic made it hard to purchase FVs from baseline (24.2%) to post (31.5%; **Table B14**). Finally, there was a decrease in the proportion of PPR participants who reported utilizing an emergency food outlet from baseline (58.7%) to post assessment (52.1%; **Table B14**).

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[44] Centers for Disease Control and Prevention. Measuring Healthy Days. Atlanta, Georgia: CDC, November 2000.

[45] Latham, K., Peek, C.W. 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

[46] DeSalvo, K.B., Bloser, N., Reynolds, K., et al. Mortality prediction with a single general self-rated health question. *Journal of general internal medicine.* 2006;21:267-75.

[47] Health Status - Health, United States. Published August 8, 2022. Available at: https://www.cdc.gov/nchs/hus/topics/health-status.htm

Y3 Baseline Only Sample

In total, 4,216 surveys were collected from PPR participants for the Y3 Baseline Only Sample. The sample size of each grantee project with baseline only surveys in Y3 ranged from 4 to 1,037 participants with an average of 141 per PPR project. Several more PPR cohorts will conclude in Y4 and will be included in the Y4 report published in 2024. A large portion of the Y3 Baseline Only Sample came from the Western (47.8%) and North Central (34.7%) regions (**Table 9**).

Sociodemographic Characteristics

Of the 44 active Y3 PPR awards, 31 collected baseline participant surveys that represented urban, rural and tribal populations in geographical regions located throughout the Northeast, Southern and Western regions. This indicates a diverse and heterogeneous sample of participants enrolled in GusNIP PPR projects. Among Y3 Baseline Only participants (N = 4,216), the majority were 45 years of age or older (69.4%) with a mean age of 53 years, female (76.9%), non-Hispanic or Latino/a/x (58.2%), and Black or African American (27.6%), Other Race (22.4%), or White (22.5%; **Table B8**). Several participants also reported being more than one race (6.0%) or responded "prefer not to answer" when asked about their race (7.3%; **Table B8**). PPR survey participants were older (mean age of 53 years) than NI survey participants (mean age of 45 years), more often female (76.9% vs. 71.1%, respectively), and more diverse across racial and ethnicity categories. A few participants identified as non-binary or third gender (n = 9), selected "prefer to self-describe" (n = 24), or selected "prefer not to answer" (n = 52; **Table B8**) when asked about their gender.

Food Security

A primary goal of GusNIP PPR projects is to reduce food insecurity. To understand baseline food security among PPR participants, the U.S. Household Food Security Survey Module: Six-Item Short Form was administered and completed by 3,981 participants before they received or redeemed their first PPR incentives (**Table B15**). A large majority of participants were food insecure (67.9%) compared to participants scoring as food secure (32.1%; **Table B15**). Participants aged 25 to 34 years reported the lowest rate of food insecurity (60.6%), followed by participants aged 65 and older (61.3%; **Table B15**). Hispanic or Latino/a/x participants in PPR projects had slightly higher rates of food insecurity (71.1%) relative to Non-Hispanic or Latino/a/x participants (65.4%; **Table B15**). American Indian or Alaskan Native participants experienced the highest rate of food insecurity (84.4%), followed by Other Pacific Islander (77.7%), Other (73.4%) and White participants (70.0%; **Table B15**). Black or African American participants reported the lowest food insecurity rate at 59.7% (**Table B15**), which is triple the national rate of food insecurity reported among Black or African American households (19.8%) in 2021.[48] As expected, the proportion of food insecure PPR participants is high. Such a result is expected because one of the main eligibility criteria for PPR project participation is "screening positive for food insecurity," which is routinely tested in health care settings using the two-item Hunger Vital Sign screener.[49]

Table 9. Number of PPR Baseline Surveys Collected Across U.S. Regions in Y3 – Y3 Baseline Only Sample[1]

Region	N (%)
Western	1,945 (47.8%)
North Central	1,411 (34.7%)
Southern	412 (10.1%)
Northeast	301 (7.4%)
Unknown[2]	147
TOTAL	**4,216**

[1] Regions defined by NIFA

[2] Some participant surveys were not able to be attributed to a region if the participant did not report their zip code

[48] Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., et al. September 2022. Household Food Security in the United States in 2021, ERR-309, U.S. Department of Agriculture, Economic Research Service.

[49] Gattu, R.K., Paik, G., Wang, Y., et al. The Hunger Vital Sign Identifies Household Food Insecurity among Children in Emergency Departments and Primary Care. Children. 2019;6(10):107.

Fruit and Vegetable Intake

A primary goal of GusNIP is to increase FV intake among PPR participants. As previously mentioned, the 2020 to 2025 DGA recommends 2 to 3 cups of vegetables and 1.5 to 2 cups of fruit each day for a total of 3.5 to 5 cups of FVs each day. In comparison, at baseline PPR participants reported consuming 1.49 vegetables cups/day, 0.94 fruit cups/day and 2.42 FVs cups/day on average (**Table B16**). In other words, the baseline FV intake (2.42 FVs cups/day) of PPR project participants was more than 1 cup lower than the recommendations for combined daily FV intake (3.5 to 5 FVs cups/day). The reported vegetable intake (1.49 vegetable cups/day) of all PPR participants was slightly less than the reported intake levels of the average U.S. adult (1.57 cups/day). The reported fruit intake (0.94 fruit cups/day) of participants was about equal to reported mean daily fruit intake of the average U.S. adult (0.96 cups/day).[50] These results are unsurprising since research indicates that, on average, individuals with low income have lower FV intake than the general population.[51] In addition, lower FV intake among PPR participants may reflect not only having low income, but also being disproportionately affected by or at risk for diet-related chronic diseases.

FV intake of Non-Hispanic or Latino/a/x participants was similar to Hispanic or Latino/a/x participants (2.42 vs. 2.50 FVs cups/day, respectively). However, Hispanic or Latino/a/x participants consumed slightly more vegetables at baseline (1.58 cups/day) compared to Non-Hispanic or Latino/a/x participants (1.47 cups/day). American Indian or Alaskan Native participants consumed the most FVs (2.55 FVs cups/day), followed closely by Other (2.53 FVs cups/day) participants and those who selected "prefer not to answer" (2.52 FVs cups/day) when asked about their race (**Table B16**).

Across age categories, participants aged 65 years or older consumed the least amount of FVs (2.32 cups/day) and participants aged 35 to 44 consumed the most FVs (2.52 cups/day; **Table B16**). Males tended to report consuming more vegetables than females (1.72 cups/day vs. 1.43 cups/day, respectively) and total FVs (2.68 cups/day vs. 2.35 cups/day, respectively; **Table B16**). Since the DSQ algorithm used to calculate FV intake requires identification of male or female gender, frequencies of intake across survey items among non-binary/third gender individuals are reported separately in **Table B17**.[52] Among PPR participants in the Y3 Baseline Only Sample for whom a daily cup equivalent of FVs could not be calculated, 30.3% reported eating fruit "3-4 times per week," 33.3% reported eating salad "3-4 times per week," and 24.2% reported eating vegetables "2 or more times per day" (**Table B17**). In addition, slightly more than half of participants agreed that the COVID-19 pandemic made it hard to purchase FVs (51.8%; **Table B14**). Finally, at baseline more than half of PPR participants (55.4%) reported that the COVID-19 pandemic resulted in utilization of emergency food outlets (e.g., food pantries; **Table B14**).

Perceived Health and Other Program Impacts

For perceived health status, almost half of PPR participants in the Y3 Baseline Only Sample (n = 4,216) reported their health being "fair" (n = 1,898, 46.8%). A higher proportion of individuals rated their health as "poor" (n = 511, 12.6%) when compared to the Y3 Analytic Sample at baseline (9.5%; **Table B12**). More than one-third of PPR participants answered "good," "very good," or "excellent" (n = 1,600, 39.5%) when asked about their overall health. As described above, the COVID-19 pandemic demonstrated less of an overarching influence this year. That said, participants of PPR projects are still feeling the impact of the pandemic on their food access. A majority of Y3 Baseline Only Sample PPR participants agreed (i.e., "agree" and "strongly agree") that the COVID-19 pandemic made it hard to make ends meet (60.8%; Table B14). In addition, slightly more than half of participants agreed that the COVID-19 pandemic made it hard to purchase FVs (51.8%; **Table B14**). Finally, at baseline more than half of PPR participants (55.4%) reported that the COVID-19 pandemic resulted in utilization of emergency food outlets (e.g., food pantries; **Table B14**).

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[50] Young, S., Guthrie, J., Lin, B-H. *Food consumption and nutrient intakes.* USDA ERS - *Food Consumption and Nutrient Intakes.* 2021. Available at: https://www.ers.usda.gov/data-products/food-consumption-and-nutrient-intakes

[51] Hoy, M.K., Goldman, J.D., Moshfegh, A.J. Differences in fruit and vegetable intake of U.S. adults by sociodemographic characteristics evaluated by two methods. *Journal of Food Composition and Analysis.* 2017;64:97-103.

[52] The GusNIP NTAE is actively working to address issues of diversity, equity, and inclusion in shared measures, which includes that the DSQ algorithm excludes the calculation of non-female/male responses.

Health care Cost, Utilization and Outcomes Future Directions

The Congressional mandate (via 2018 Farm Bill) that established GusNIP requires the GusNIP NTAE to evaluate health care costs, utilization and outcomes associated with participating PPR projects. All GusNIP-funded PPR grantees agreed to report on participant health care cost, utilization and outcomes data.

In partnership with the GusNIP NTAE, PPR grantees have collected a suite of health care measures. Of the 31 unique PPR projects awarded between 2019 and 2021, 58.1% are collecting health and clinical outcome measures (e.g., blood pressure, hemoglobin A1c), 45.2% are tracking health care utilization intended to increase due to PPR (i.e., "positive" utilization such as well visits), 25.8% are tracking health care utilization intended to decrease due to PPR (e.g., "negative" utilization such as diabetes-related emergency department visits due to high or low blood sugar), and 54.8% report access to participants' electronic health record (EHR) data (as of November 2022). When asked, most projects reported reaching adult patients at risk for having a diet-related chronic disease (74.2%) and patients who screen positive for food insecurity (58.1%). **Table 10** summarizes the breadth of health care-related data collected by all active GusNIP PPR grantees for the 2019 to 2021 award cohorts.

Since its inception, the GusNIP NTAE has worked with PPR grantees and their clinical partners to build capacity for collecting health care-related measures. GusNIP NTAE staff and partners at the Nutrition Incentive Hub meet with all PPR grantees regularly, connect PPR grantees to TA opportunities, deliver webinars, and host relevant communities of practice (PPR and External Evaluators) to foster peer-to-peer support. The R&E team has developed resources and guides for grantees with recommended strategies to evaluate PPR projects. Examples include various resources to guide grantees through Health Insurance Portability and Accountability Act (HIPAA) regulations, data use agreements, Institutional Review Board (IRB) application protocols, frequently asked questions, and other strategies to help PPR grantees with project implementation. These efforts have enhanced the ability of PPR grantees to collect health care-related data. However, multiple grantees indicate that reporting health care-related measures continues to be a challenge.

The GusNIP NTAE is engaging experts and teams in PPR research and practice to build the evidence base for PPR. For example, the GusNIP NTAE implemented a small grants program to provide PPR grantees with one-year awards of $10,000 each to facilitate the extraction of selected cost and utilization data and then link these data with clinical and survey data from PPR participants. These awards also seek to understand the barriers to data collection through qualitative inquiry. Nine awards were provided to PPR grantees: one from the 2019 GusNIP cohort, three from the 2020 GusNIP cohort, four from the 2021 GusNIP/CRR cohorts, and one from the 2022 GusNIP cohort. This award program will allow the GusNIP NTAE to better understand the experiences of distinct types of PPR grantees (e.g., grantee as a clinic, grantee as a large hospital system, grantee as a nonprofit), to identify the challenges and successes with collecting data for each grantee type, and to develop strategies that existing and new PPR grantees can incorporate and implement. Additionally, the GusNIP NTAE secured competitive non-GusNIP funding (American Diabetes Association: 7-22-ICTSN-40) to conduct a quasi-experimental, longitudinal, multi-case study with five of these nine grantees to rigorously evaluate the impact of the PPR programs on glycemic and health outcomes for participants with diabetes (compared to a control group).

Produce prescriptions helped a participant make healthy lifestyle changes:

> *"Even though I'm an active person, my doctor was saying I needed to eat more fruits and vegetables, like colorful foods, because I was diagnosed with pre-diabetes. She put me on medication for it but I didn't want to be on it. She said for now you need to be on this but also work on your diet. I now crave fruits and vegetables. Which I never thought would happen, because growing up I ate a lot of fast food and Mexican foods. My appetite towards vegetables has totally changed. With [the PPR Project] I was able to get off the pre-diabetes medicine, which wasn't overnight but happened over time. I have also learned how to cook vegetables in new ways. Videos were really helpful during the pandemic. I have lost weight, too."*

- North Central region PPR project participant

Nevertheless, challenges to collecting and evaluating these data exist for all PPR grantees. Barriers include laws and regulations to protect patient data (e.g., HIPAA), inconsistency in how health systems define and record measures of utilization/cost, limited knowledge and/or capacity to apply for IRB approval and/or to develop data use agreements in retrieving EHR data, and lack of understanding of appropriate health care outcomes to measure for various patient populations. The GusNIP NTAE continues to support PPR projects to overcome these barriers and make progress towards extracting and reporting on participant health care cost, utilization and outcomes data.

Table 10. Summary of Health care-related Measures Collected by GusNIP PPR Grantees

Summary of Health care-related Measures	2019 GusNIP	2020 GusNIP	2021 GusNIP	2021 GusCRR	Overall[1]
Eligibility Criteria # of projects (% of total projects)	7 Projects	10 Projects	10 Projects	15 Projects	31 Unique Projects
Adults	4 (57.1%)	9 (90%)	5 (50%)	9 (60%)	21 (67.7%)
Adults Diagnosed with Nutrition-related Chronic Disease (not type 2 diabetes)	2 (28.6%)	2 (20%)	1 (10%)	2 (13.3%)	4 (12.9%)
Adults Diagnosed with Type 2 Diabetes	2 (28.6%)	2 (20%)	2 (20%)	2 (13.3%)	5 (16.1%)
Children	3 (42.9%)	3 (30%)	2 (20%)	7 (46.7%)	12 (38.7%)
Medicaid or Medicare Recipient	5 (71.4%)	5 (50%)	6 (60%)	6 (40%)	17 (54.8%)
Pregnant People	1 (14.3%)	0 (0%)	1 (10%)	2 (13.3%)	2 (6.4%)
Screen Positive/at Risk for Diet-Related Chronic Disease	6 (85.7%)	8 (80%)	7 (70%)	10 (66.7%)	23 (74.2%)
Screen Positive for Food Insecurity	4 (57.1%)	8 (80%)	4 (40%)	9 (60%)	18 (58.1%)
SNAP Recipient	2 (28.6%)	5 (50%)	3 (30%)	6 (40%)	13 (41.9%)
Other	2 (28.6%)	3 (30%)	5 (50%)	7 (46.7%)	10 (32.3%)
Health Outcome Measures # of projects (% of total projects)	7 Projects	10 Projects	10 Projects	15 Projects	31 Unique Projects
Weight	5 (71.4%)	5 (50%)	4 (40%)	5 (33.3%)	16 (51.6%)
Height	5 (71.4%)	5 (50%)	4 (40%)	5 (33.3%)	16 (51.6%)
HbA1c	5 (71.4%)	4 (40%)	5 (50%)	4 (26.7%)	15 (48.4%)
Blood Pressure (Hg/mm)	3 (42.9%)	2 (20%)	5 (50%)	3 (20%)	11 (35.5%)
Depression	2 (28.6%)	0 (0%)	2 (20%)	1 (6.7%)	4 (12.9%)
Anxiety	1 (14.3%)	0 (0%)	2 (20%)	0 (0%)	2 (6.4%)
Social Isolation/Loneliness	1 (14.3%)	0 (0%)	1 (10%)	1 (6.7%)	2 (6.4%)
Health-related Quality of Life	2 (28.6%)	0 (0%)	1 (10%)	0 (0%)	2 (6.4%)
Access to Electronic Health Record	3 (42.9%)	5 (50%)	6 (60%)	9 (60%)	17 (54.8%)
Collect at Least One Health Measure	5 (71.4%)	5 (50%)	6 (60%)	5 (33.3%)	18 (58.1%)

Summary of Health care-related Measures	2019 GusNIP	2020 GusNIP	2021 GusNIP	2021 GusCRR	Overall[1]
Positive Health care Utilization # of projects (% of total projects)	7 Projects	10 Projects	10 Projects	15 Projects	31 Unique Projects
Primary Care Provider Visits	2 (28.6%)	2 (20%)	3 (30%)	3 (20%)	9 (29%)
Well-visits with Endocrinologist or Diabetes Doctor	0 (0%)	1 (10%)	2 (20%)	2 (13.3%)	5 (16.1%)
Medication Adherence/ Prescription Refill	1 (14.3%)	1 (10%)	3 (30%)	0 (0%)	4 (12.9%)
Other Provider Appointments (e.g., dietician CHW)	3 (42.9%)	3 (30%)	4 (40%)	2 (13.3%)	11 (35.5%)
Collect at Least One Positive Utilization Measure	3 (42.9%)	3 (30%)	6 (60%)	3 (20%)	14 (45.2%)
Negative Health care Utilization # of projects (% of total projects)	7 Projects	10 Projects	10 Projects	15 Projects	31 Unique Projects
Emergency Room Visits	4 (57.1%)	1 (10%)	3 (30%)	2 (13.3%)	8 (25.8%)
Hospital Admissions	2 (28.6%)	0 (0%)	2 (20%)	1 (6.7%)	4 (12.9%)
Hospital Readmissions	1 (14.3%)	0 (0%)	2 (20%)	0 (%)	2 (6.4%)
Missed Appts (i.e., no shows)	2 (28.6%)	0 (0%)	2 (20%)	1 (6.7%)	4 (12.9%)
Collect at Least One Negative Utilization Measure	4 (57.1%)	1 (10%)	3 (30%)	2 (13.3%)	8 (25.8%)
Health care Costs # of projects (% of total projects)	7 Projects	10 Projects	10 Projects	15 Projects	31 Unique Projects
Total Cost Expenditures ($) Per Patient Via Claims Data	0 (0%)	1 (10%)	2 (20%)	0 (0%)	3 (9.7%)
Dietary Intake Measures[2] # of projects (% of total projects)	7 Projects	10 Projects	10 Projects	15 Projects	31 Unique Projects
Veggie Meter	0 (0%)	1 (10%)	1 (10%)	1 (6.7%)	2 (6.4%)
24 Hour Dietary Recall	0 (0%)	0 (0%)	0 (0%)	1 (6.7%)	1 (3.2%)

[1] The sum of a row does not equal the 'overall' numbers because some grantees received several awards across different years for the same program.
[2] All grantees collect fruit and vegetable intake data through the Dietary Screener Questionnaire (DSQ) in addition to these dietary measures.

Y3 Implementation, Evaluation and Accomplishments

During Y3, the GusNIP NTAE continued delivering high-quality service to prospective and active GusNIP/GusCRR grantees, as well as the broader NI and PPR fields. The GusNIP NTAE led all collaborating partners to provide around-the-clock TA for evaluation and implementation needs including application support, intensive one-on-one coaching, broad-reach conferences and convenings, as well as peer-to-peer learning. The GusNIP NTAE teams bolstered evaluation and implementation capacity through a PPR small grants program, reimbursement grants for grantees to provide stipends for survey participants, as well as continuation of the Capacity Building and Innovation Fund (CBIF). These teams also shared valuable insights gleaned from the national evaluation via presentations, website resources, peer-reviewed publications, as well as national and mini convenings. An abbreviated list of Y3 accomplishments is provided below. The full list of Y3 accomplishments is available in **Appendices 9 and 10**.

Reporting and Evaluation Accomplishments

During Y3, the R&E team:

- Delivered evaluation-focused TA that resulted in 12,618 completed participant surveys across NI and PPR projects.
- Completed in-person field visits to 12 grantee sites.
- Continued to improve and refine the Program Advisor model by implementing a new training plan for staff serving in that role.
- Continued to provide 1:1 assistance to grantees throughout their grant lifecycle via Program, Reporting, and Survey Advisor roles.
- Launched an **External Evaluators Community of Practice** to encourage information sharing and engagement across GusNIP grantee peers and their partners.
- Secured non-federal funding to conduct robust sub-studies that strengthen the evidence regarding how and to what extent NI and PPR projects improve participant outcomes.
- Supplemented the GusNIP NTAE website and secure portal with new and refined project design, implementation and evaluation resources for GusNIP grantees and future applicants.
- Enhanced the GusNIP NTAE website and secure portal with the newly launched Searchable Resource Library and Discussion Groups to better support grantees and practitioners in their work.
- Co-authored and published 10 peer-reviewed manuscripts that disseminate landmark GusNIP research (see peer-reviewed publications during Y3 on the next page).

Technical Assistance and Innovation Accomplishments

During Y3, the TA&I team:

- Provided robust support for applicants during the FY22 GusNIP RFA cycle: responded to 299 individual requests for support, conducted one-hour consultations with 166 potential applicants, facilitated six RFA-specific webinars, and developed eight new RFA-specific resources including templates and checklists.
- Organized the 2022 Nutrition Incentive Hub Annual Convening for more than 1,000 virtual attendees and featuring 144 speakers and a keynote presentation from Dr. Sara Bleich.
- Continued to invest in GusNIP projects and implementation partners through the Capacity Building and Innovation Fund (CBIF), which awarded $1.4 million to 33 grantees across the nation (see call-out box).
- Began assisting GusCRR projects to more efficiently and effectively distribute financial incentives for FVs.
- Facilitated a process to collect grantee and applicant feedback regarding the FY21 RFA in order to inform future grant cycles.
- Responded to 1,000+ individual TA requests to provide meaningful one-on-one project implementation engagement.
- Facilitated five communities of practice and three online learning cohorts in order to foster peer-to-peer engagement and support. Subsequently, three grantees received first-time funding from the state legislature while participating in the State Funding Learning Cohort.
- Launched the new B&M Community of Practice and CSA Learning Cohort to encourage learning, collaboration and information sharing among projects emphasizing B&M sites and CSA.
- Held one in-person mini convening focused on rural NI projects that provided an opportunity for grantees to learn from peers and TA&I partners.

See **Appendix 10** for a full list of Y3 TA&I accomplishments.

The Capacity Building and Innovation Fund (CBIF)

What is CBIF?
A funding opportunity administered by Fair Food Network in collaboration with the Nutrition Incentive Hub to provide funds for current and past USDA GusNIP, GusCRR, and FINI grantees and their partners to implement capacity building or innovation initiatives.

Examples of CBIF:
Rhode Island Public Health Institute (Providence, RI) received an award to implement a retail technology pilot program intended to extend nutrition incentive benefits to all Rhode Island (RI) SNAP recipients. In July 2022, the RI FY23 state budget allocated $11 million dollars to support a statewide Retail SNAP Incentive Program (RSIP). RI's RSIP will provide a SNAP incentive in the form of an automatic 50% discount on fresh FV purchases for all SNAP recipients paying with their benefits at a retail grocery store. The CBIF enabled RI Public Health Institute to work with a consultant and nimbly shift from creating the project blueprint and scope of work to implementing and operationalizing the statewide incentive program.

Real Foods Collective (Maywood, IL), a sub-awardee of the Chicago Horticultural Society, received a CBIF award to utilize strategic planning to build the capacity of the VeggieRx Maywood program. Strategic planning initiatives included design of a communications strategy as well as investment in leadership development to support unrepresented farmers and food business entrepreneurs. Through this process, Real Foods Collective made connections with housing complexes and community-based organizations working with children, families and seniors. In collaboration with Loyola Medicine, the Mobile Market program is currently being piloted at emergency, family and pediatric clinics throughout Cook County. In addition to mobile market sites, the Mobile Market truck will provide nutrition education and supportive food services throughout the community.

Urban Harvest (Houston, TX), a sub-awardee of Sustainable Food Center, received a CBIF award to design, pilot and evaluate the effectiveness of two new marketing strategies aimed at increasing incentive participation at Urban Harvest's affiliated farmers markets and farm stands. This project enabled Urban Harvest to share evaluation results through interactive dashboards and use data to inform future marketing efforts. This project built evaluation capacity and sustainability for Urban Harvest's network of partnerships including the Galveston's Own Farmers Market.

Community Outreach and Patient Empowerment (COPE) Program (Gallup, NM) received an award to purchase mobile refrigeration units for small stores across Navajo Nation. Small stores on Navajo Nation, which range from convenience stores to trading posts, are often the most accessible source of food for community members. COPE worked closely with stores to identify their needs as small businesses and to share ways these businesses can procure, stock and promote produce to customers. The refrigeration units will allow retailers to display, market and generate profit from eligible fruits and vegetables, including traditional foods.

Where to find information about CBIF:
The October 2022 **press release** provides more information about the CBIF application and selection process. A **complete list** of all CBIF awards is available on the Nutrition Incentive Hub website.

Next Steps for Future Years

In Y4 and beyond, combined R&E and TA&I efforts will focus on strengthening the NI and PPR fields by empowering **grantees, applicants, participants, food retail outlets, clinics and other partners** to implement and evaluate projects, build organizational capacity to reach diverse communities, efficiently utilize grant dollars in an effective way, and foster public and private partnerships. The GusNIP NTAE will continue to accomplish this work as outlined in our roadmap of next steps for future years:

Grantee and Applicant Support

- Continue to serve GusNIP and GusCRR NI and PPR grantees using existing Program, Reporting and Survey Advising models. Begin to serve ARPA PPR grantees via the same models. These models provide both one-on-one and cohort-based R&E TA to grantees upon initial award and throughout the lifespan of their grants. Also available are R&E-focused field visits, mini convening opportunities, and stipend grants for participant survey data collection support.
- Augment external contracts with added subject matter experts in PPR, health care, economic impact, and other areas (e.g., continue existing contracts, identify and onboard new consultants), with a specific emphasis on building capacity among grantees to collect health care cost, utilization, and outcomes data, and any other expressed grantee needs that arise.
- Continue to support GusCRR grantees within existing reporting systems and processes, ensuring separate tracking mechanisms for different award types where needed. Begin to support newly awarded ARPA grantees via the same systems, processes and mechanisms.
- Continue to receive, monitor, track and coordinate an average of 250+ requests per quarter to support NI and PPR grantees and practitioners.
- Identify and onboard a new TA partner to assess the current breadth and depth of grantee sourcing efforts. The assessment will identify barriers and facilitators of sourcing local produce as well as grantees' commitment to incorporating local sourcing objectives into their projects. Subsequently, TA&I will reconfigure the Local Sourcing Community of Practice to better align with grantee interests and emergent needs.
- Identify support needed by established NI and PPR projects who are working on strategies to sustain and scale their existing programs.

Resource Development

- Continue to refine and promote the site- and participant-level core measures to assess impact across NI and PPR projects. This includes refinement and promotion of optional participant measures, non-English translations of the participant survey, as well as development of associated tools and resources driven by expressed grantee need (e.g., identifying and implementing more culturally appropriate measures and methodologies among populations served by grantees).
- Develop new and modify existing surveys that assess NI and PPR project impact among food retail outlet staff and health care providers based upon grantee interest and capacity. Work related to these surveys may include pilot testing and development of a case study.
- Continue to develop and enhance tools and systems to improve data visualization outputs. Key enhancements include: dashboards within the secure web portal, Power BI for key audiences, and Grantee Project Map functionality.
- Develop and publish new TA&I resources (emphasizing tribal communities and communities using the Nutrition Assistance Program) on the public-facing website to support previously identified needs related to operating mobile markets, supporting local sourcing of participating sites, fundraising, and online SNAP implementation.
- Build upon the point-of-sale functionality standards developed in Y3 to help more grantees use technology-enabled systems. This process will include an inventory of pros and cons of existing solutions as well as identification of new technology-enabled options for NI and PPR benefit redemptions.

Connecting the Field

- Maintain and refine the public-facing website with newly designed widgets, content and features (e.g., GusNIP program information, resources, tools). Apply a strategic communications plan to encourage utilization of the website across key audiences.
- Conduct maintenance and enhancement of the Searchable Resource Library and Discussion Groups.
- Promote peer-to-peer learning through online Discussion Groups on the public-facing website.
- Launch new opportunities for peer learning, sharing and relationship building (e.g., regional gatherings, field visits, trainings, conference scholarships, annual convening tracks).
- Continue to facilitate communities of practice focused on PPR projects, NI projects, operating programs in corner stores, DEI, and incentives in B&M stores. Attention will also focus on facilitation of three learning cohorts that address state funding for NI and PPR projects, E-Tokens, and CSAs.
- Facilitate the Nutrition Incentive Hub annual convening (planned for June 2023).
- Launch a Participant Engagement Learning Cohort (PELC) that will include regular meetings of a subset of grantee organizations, participants, and TA&I providers to assess community engagement efforts underway in GusNIP projects. The PELC will develop relevant participant and community engagement resources.

Growing the Field

- Continue to conduct qualitative research to explore complex issues that inform the GusNIP NTAE's evaluation approach.
- Continue to identify knowledge gaps in the NI and PPR literature. Thereafter, develop and implement robust sub-studies, scoping reviews, case studies, peer-reviewed manuscripts and conference presentations.
- Conduct statistical analyses for all current GusNIP, GusCRR and ARPA projects (n = 183), pertaining to site- and participant-level outcomes of interest. Provide individual grantee reports as requested.
- Launch an economic impact calculator tailored to NI projects using state groupings based on similar agricultural and food economies. The new calculator is anticipated to be available during summer 2023 at www.nutritionincentivehub.org.
- Award additional rounds of CBIF grants to GusNIP grantees and their implementation partners as well as to practitioners who are preparing to apply for GusNIP funding.
- Begin to interpret and disseminate findings from the GusNIP PPR Small Grants Health care Program. Findings will include qualitative inquiry and mixed method approaches to understand potential impacts of PPR projects on resulting health care utilization and associated costs.
- Interpret Y4 and comprehensive (Y1-Y4) impact and process results and disseminate via a report to Congress as well as a public-facing impact findings report.
- Continue efforts to reach potential GusNIP grantees in currently underrepresented geographies (e.g., tribal communities, underrepresented states, U.S. territories and protectorates).

Conclusions

Together, the GusNIP NTAE, Nutrition Incentive Hub, and GusNIP/GusCRR grantees, partners, and participants successfully navigated the complexity of NI and PPR project implementation and evaluation in order to identify Y3 impacts. To better understand the Y3 impacts and the implications of this report, Y3 results can be interpreted in comparison to other federally funded evaluations of nutrition incentive initiatives as well as to the GusNIP NTAE Y2 findings. For instance, when compared to the original Healthy Incentives Pilot Program (HIP) evaluation, the GusNIP NTAE's Y3 evaluation findings show a similar increase in participants' FV intake.[53] However, this increase in FV intake is contrary to GusNIP's predecessor, the Food Insecurity Nutrition Incentive (FINI) program evaluation that found no statistically significant change in FV intake due to the program.[54] As reported in the GusNIP NTAE's Y2 GusNIP Impact Findings, Y3 participants from both NI and PPR projects reported higher FV intake than the average U.S. adult (NI: 2.78 cups/day, PPR: 2.58 cups/day, average U.S. adult: 2.53 cups/day) after participating in GusNIP. Furthermore, longer participation in an NI project during Y3 and enrollment in a PPR project during Y3 were both associated with higher FV intake. However, Y3 results show that FV intake among both NI and PPR participants still falls below the 2020 to 2025 DGA recommendation of 3.5 to 5 cups per day.

Similarly, Y3 distribution and redemption data can be interpreted in comparison to Y2 data. Y3 grantees distributed and redeemed more than twice the dollar value of incentives at almost double the number of redemption sites than Y2 grantees. On average, redemption sites were located in communities where approximately 14% of the population earned an income below the federal poverty level (compared to 11% nationally). As a result of GusNIP, more FVs are being purchased and consumed by U.S. individuals and families with identified need. Furthermore, incentives redeemed during Y3 are estimated to have generated more than $85M in local economic impact. This result demonstrates that NI and PPR projects are not only positively impacting participants and food retail outlets, but also positively impacting communities at-large. A sizeable portion of Y3 grantee budgets were allocated to incentives (73% in Y3 versus 75% in Y2 and 68% in Y1) indicating that grantees spent grant funds more efficiently in Y2 and continued this efficiency in Y3. Finally, with help from the GusNIP NTAE, over half of PPR grantees collected a robust set of health care measures that will be used to better understand the impact of PPR programs nationwide. Overall, Y3 results indicate the positive value of incentives on FV purchases and intake, food security, as well as local economic impact.

During Y4, the GusNIP NTAE will build upon the momentum, systems and infrastructure developed during the previous three years. The GusNIP NTAE continues to hone its model for providing wraparound services that help grantees, applicants and the broader NI and PPR fields learn from the shared dataset. The GusNIP NTAE has developed a deep understanding of NI and PPR project nuances and how to best build grantee and applicant capacity. With a growing number of projects funded through GusNIP, GusCRR and ARPA, Y4 will include further expansion and scaling of the GusNIP NTAE's services in collaboration with USDA NIFA, grantees, applicants, participants, food retail outlets, clinics and other partners.

The collaborative work of the GusNIP NTAE, Nutrition Incentive Hub, and grantees, made possible through USDA NIFA funding, is well-situated to make a positive impact within the broader landscape of U.S. public health nutrition work. In 2022, USDA announced an expanded focus on nutrition security that addresses the co-existence of food insecurity, diet-related diseases and disparities.[55]

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[53] Olsho, L.E., Klerman, J.A., Wilde, P.E., et al. Financial incentives increase fruit and vegetable intake among Supplemental Nutrition Assistance Program participants: a randomized controlled trial of the USDA Healthy Incentives Pilot. *The American journal of clinical nutrition*. 2016;104(2):423-35.

[54] Vericker, T., Dixit-Joshi, S., Taylor, J., et al. Impact of food insecurity nutrition incentives on household fruit and vegetable expenditures. *Journal of Nutrition Education and Behavior*. 2021;53(5):418-27.

[55] U.S. Department of Agriculture. (2022, March 17). USDA Announces Actions on Nutrition Security *[press release]*. https://www.usda.gov/media/press-releases/2022/03/17/usda-announces-actions-nutrition-security.

Nutrition security means ensuring "consistent and equitable access to healthy, safe, affordable foods essential to optimal health and well-being." USDA's approach to tackling food and nutrition insecurity aims to:

1. Recognize that structural inequities make it hard for many people to eat healthy and be physically active; and
2. Emphasize applying an equity lens to these efforts.[56,57]

USDA's move toward and commitment to nutrition security is further underscored by the Biden-Harris Administration's National Strategy on Hunger, Nutrition and Health, which calls for improved food access and affordability, integrated nutrition and health, as well as enhanced food and nutrition security research.[58] GusNIP's overall focus on increasing the purchase and intake of healthier foods (i.e., FVs) while decreasing food insecurity, coupled with PPR's specific focus on improving health outcomes while decreasing health care costs associated with diet-related chronic disease, make incentive programs an integral tool for addressing nutrition security.

In conclusion, during Y4, the GusNIP NTAE will remain deeply invested in continuing to **help individuals and families with low income to purchase and consume more FVs**. This collective effort, combined with the momentum created by the White House's heightened focus on hunger, nutrition and health as well as the USDA's **Actions on Nutrition Security** will aid in **increasing nutrition security, reducing food insecurity and the burden of chronic disease, and strengthening local economies both now and well into the future.**

[56] For more information on nutrition security definitions and actions, see: https://www.usda.gov/nutrition-security

[57] Mozaffarian, D., Fleischhacker, S., Andrés, J.R. Prioritizing nutrition security in the U.S. *JAMA*. 2021;325(16):1605-6.

[58] White House. (September, 2022). Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health. https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf

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Appendices

Appendix 1. Glossary of Acronyms/Abbreviations

Abbreviation/Acronym	Full Name/Description
A	
ARPA	American Rescue Plan Act
B	
B&M	brick-and-mortar
BMI	body mass index
C	
CBIF	Capacity Building and Innovation Fund
CDC	Centers for Disease Control and Prevention
CSA	community supported agriculture
D	
DEI	diversity, equity, and inclusion
DGA	Dietary Guidelines for Americans
DPP	Diabetes Prevention Program
DSQ	Dietary Screener Questionnaire
E	
EBT	electronic benefits transfer
EFNEP	Expanded Food and Nutrition Education Program
EHR or EMR	electronic health record or electronic medical record
E-Token	electronic token
F	
FD	
FFN	Fair Food Network
FI	food insecurity
FINI	Food Insecurity Nutrition Incentive Program
FVs	fruits and vegetables
FVI	fruit and vegetable intake
FY	fiscal year
G	
GSCN	Gretchen Swanson Center for Nutrition
GusCRR	GusNIP COVID Relief and Response
GusNIP	Gus Schumacher Nutrition Incentive Program (formerly the FINI Program)
H	
HbA1c or A1c	hemoglobin A1c (measurement for blood sugar)
HIP	Healthy Incentives Pilot
HIPAA	Health Insurance Portability and Accountability Act

Abbreviation/Acronym	Full Name/Description
I	
IRB	Institutional Review Board
N	
NGA	National Grocers Association
NI	nutrition incentive (includes SNAP incentives)
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. Gretchen Swanson Center for Nutrition serves as the NTAE for GusNIP.
P	
PA	program advisor
PELC	Participant Engagement Learning Cohort
PPR	produce prescription (general); GusNIP Produce Prescription Project (USDA NIFA program code)
R	
RA	reporting advisor
RD	registered dietitian
R&E	reporting and evaluation
RFA	request for applications
RSIP	Retail SNAP Incentive Program
S	
SA	survey advisor
SNAP	Supplemental Nutrition Assistance Program
SNAP-Ed	Supplemental Nutrition Assistance Program Education
T	
TA	technical assistance
TA&I	technical assistance and innovation
U	
USDA	United States Department of Agriculture
W	
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
Y	
Y	year

Appendix 2. Core Partner Structure

USDA NIFA

GusNIP NTAE Center

Gretchen Swanson Center for Nutrition

Project Director
Amy Lazarus Yaroch, PhD

Nutrition Incentive Hub
CREATED BY GUSNIP NTAE CENTER

Reporting & Evaluation (R&E)

R&E Lead
Gretchen Swanson Center for Nutrition
Team of 14 staff

Research Partners
Data Management and Analysis Center,
Cincinnati Children's Hospital Medical Center
Project Director: Nanhua Zhang, PhD

University of California San Francisco
Project Director: Hilary Seligman, MD, MAS

12 Research & Program Advisor Consultants

Technical Assistance & Innovation (TA&I)

TA&I Lead
Fair Food Network
Team of 9 staff

Farm Direct
Farmers Market Coalition
Michigan Farmers Market Association

Grocery Retail
National Grocers Association Foundation

Produce Prescription
Michigan Farmers Market Association
DAISA

Corner Stores & Nutrition Education
The Food Trust

Appendix 3. Participant-Level Data Collection Methodology

Sample Size Requirements

The tables below show the sample size requirements by year and project type. Program advisors (PAs) worked one-on-one with each of their grantees to determine the best sampling and survey administration procedures to achieve the sample size requirements. Nutrition incentive (NI) grantees collect surveys annually, at a single time point. Produce prescription (PPR) grantees collect surveys across their award period, surveying the same participants at two time points (baseline and post-project).

GusNIP Sample Size Requirements

Year	GusNIP Pilot Projects	GusNIP Projects	GusNIP Large Scale Projects	GusNIP Produce Prescription Projects
2019	Not required	230	150	100-130
2020	Not required	150	100	100-130
2021	Not required	150	100	100-130

GusCRR Sample Size Requirements

Year	GusCRR Projects	GusCRR Large Scale Projects	GusCRR Produce Prescription Projects
2021	75	100	75

Inclusion and Exclusion Criteria

NI survey respondents were required to be 18 years of age or older, current SNAP recipients and participants of an NI program. PPR survey respondents were recruited through health clinics or health programs, were required to be 18 years of age or older, and meet any specific eligibility criteria outlined by the grantee (e.g., diabetes diagnosis, Medicaid recipient). Surveys with a completion rate of 75% or higher and with complete responses for the dietary screener questionnaire and food security module were included in each grantee's sample size.

Participant-Level Survey Modules

Rationale for the selection of each survey module, which contains the participant-level core measures, is described in further detail on the Nutrition Incentive Hub website for **NI projects** and for **PPR projects**.

Sociodemographic Characteristics. Sociodemographic data were 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 across populations.

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 in the last 30 days and whether the participant is able to afford the food needed by their household. Applying USDA's scoring mechanism, each affirmative response received one point, for a total possible score range of 0-6. Scores of 0-1 are considered "high/marginal food security," scores of 2-4 are considered "low food security," and scores of 5-6 are considered "very low food security."

Fruit and Vegetable Intake (FVI). Participants were asked about their intake frequency of 10 food and beverage items to assess FVI: 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.**[1] Response options for each item include: "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," "2-3 times per day," with the addition of "4-5 times per day," and "6 or more times per day" for the 100% fruit juice item only.[2] 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
2-3 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 input into a **scoring algorithm** developed specifically for the DSQ to determine *daily cup equivalents* of FVI.

COVID-19. In order to determine the impact of COVID-19 on food access among participants, three items were included in the survey. These items were:

- "The coronavirus (COVID-19) has made it hard for me and others in my household to make ends meet." Response options were on a 5-point Likert scale of strongly disagree to strongly agree.
- "The coronavirus (COVID-19) has made it hard for me and others in my household to get fresh fruits and vegetables." Response options were on a 5-point Likert scale of strongly disagree to strongly agree.
- "Since the coronavirus (COVID-19) outbreak, have you or anyone in your household gotten free groceries from a food pantry, food bank, church, or other place that helps with free food?" Response options were "yes," "no," or "I don't know."

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

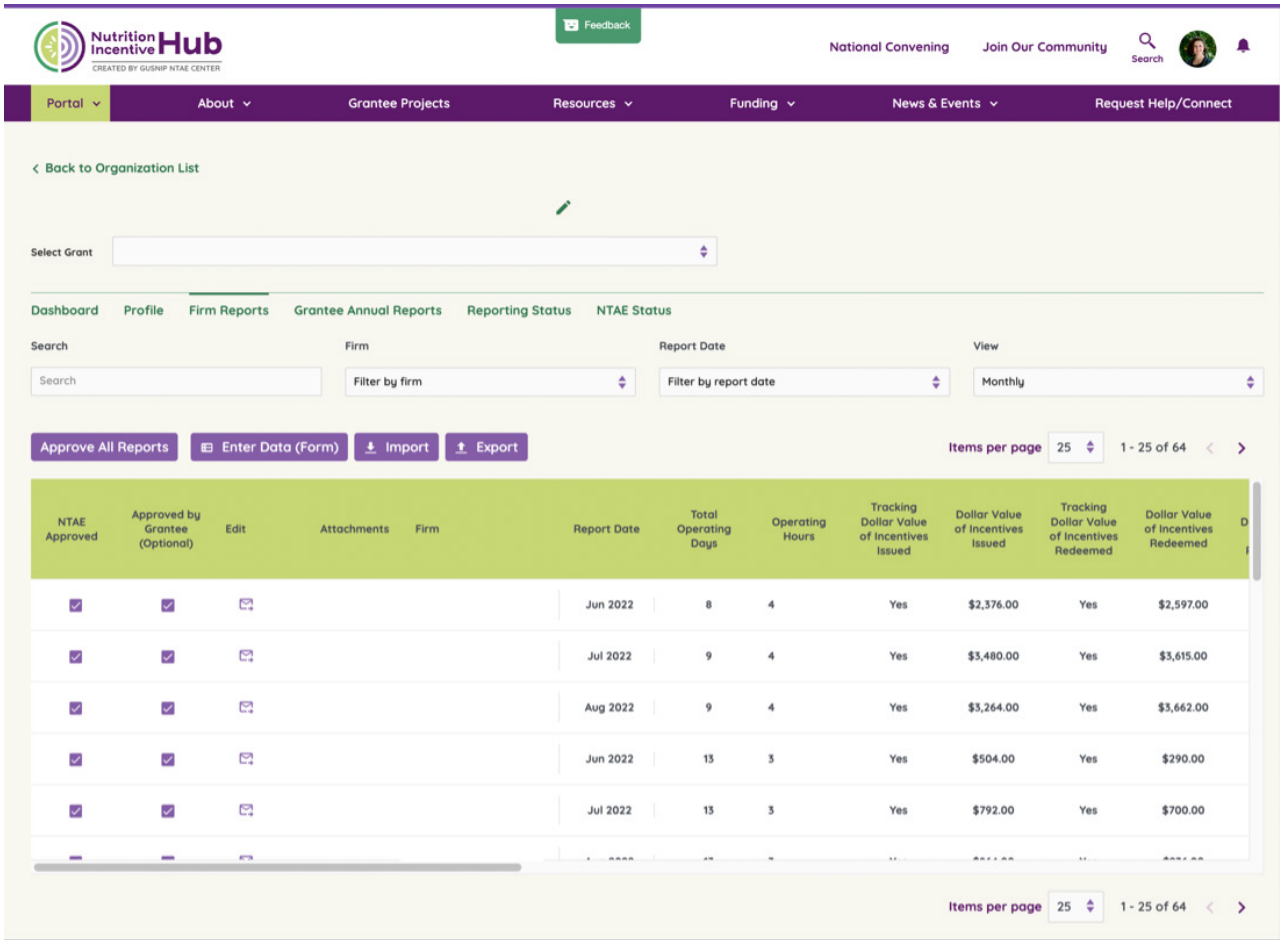
[1] Epidemiology and Genomics Research Program. (n.d). Dietary screener questionnaire in the NHANES 2009-10: Background. National Institutes of Health, National Cancer Institute, Division of Cancer Control and Population Sciences. https://epi.grants.cancer.gov/nhanes/dietscreen/
[2] The fruit juice item 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."

Supplementary Participant-Level Data Collection Resources

The GusNIP NTAE has developed and maintained a list of optional topics and constructs for participant-level surveys to help grantees identify additional items that may be of interest and relevant to their specific project (e.g., 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). With a growing number of GusNIP grantees focusing on families, the GusNIP NTAE has developed a suite of youth and parent survey items and modules. These tools are designed to be used jointly when a project has a child-focused component and is interested in exploring youth health outcomes. The full versions of these tools, which include a baseline and post-survey for both children and parents, can be found on the **Supplementary and Recommended Metrics** page of the website. The supplementary participant-level data collection resources are not reported by the GusNIP NTAE in the Impact Findings.

Appendix 4. Site-Level Reporting Methodology

Grantees submitted reports on a monthly and annual basis to the GusNIP NTAE via the Nutrition Incentive Hub portal. The figure below 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 Sept 30)
- Grantee Annual Report (1 per grant award per year Sept 30)

The site-level reporting data are based on a series of core measures summarized in the tables below.

NI Site-Level Core Measures

Core measures for **grantee organizations** are outlined below. Grantees only need to report these measures for their award as a whole. Multiple reports are expected 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 need to report these measures for all 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

* Exact number of fields varies depending on if the site offers additional programming

Core measures for **farm direct sites**, including farmers markets, farm stands and CSAs, are outlined below. Grantees need to report these measures for all 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

* Exact number of fields varies depending on if the site offers additional programming

PPR Site-Level Core Measures

Core measures for **grantee organizations** are outlined below. Grantees only need to report these measures for their award as a whole. Multiple reports are expected 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, that facilitate redemption of PPR incentives, are outlined below. Grantees need to report these measures for all their brick-and-mortar 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

* Exact number of fields varies depending on if the site offers additional programming

Core measures for **farm direct sites**, including farmers markets, farm stands and CSAs, that facilitate redemption of PPR incentives are outlined below. Grantees need to report these measures for all 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

* Exact number of fields varies depending on if the site offers additional programming

Core measures for **clinics** that enroll participants, distribute PPR incentives and/or facilitate the redemption of PPR incentives are outlined below. Grantees need to report these measures for all their clinics that enroll, distribute and/or facilitate the redemption of PPR incentives.

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

* Exact number of fields varies depending on if the clinic is an enrollment site, distribution site and/or redemption site and if the clinic offers additional programming

Appendix 5. Description of 2021 GusNIP and GusCRR Grantees

2021 GusNIP and GusCRR Grantees: Produce Prescription Projects (PPR)

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Eligible Population	Intervention Length	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
GusNIP							
Appalachian Sustainable Agriculture Project	CBO	$465,943, 3 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; SNAP recipient	12 months	4 clinic, 11 farm direct	$20, $40, or $60 of farmers market tokens weekly depending on size of household	NC
Catholic Health Initiatives Colorado Foundation	HCO	$466,362, 3 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; SNAP recipient	6 months	Pending	$100 of vouchers for initial prescription, then $50 of vouchers monthly	CO
County of Alameda	GOV	$466,475, 3 years	Screen positive/ at risk for diet-related chronic disease; Screen positive for food insecurity	4 months	1 clinic, 1 farm direct	$160 of produce over 16 weeks through home delivery	CA
La Semilla Food Center	CBO	$466,112, 3 years	Screen positive/ at risk for diet-related chronic disease	3 months	1 clinic, 1 farm direct	$55 of local produce delivered to patient homes weekly	NM

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Eligible Population	Intervention Length	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
Parkview Hospital Inc.	HCO	$466,373, 3 years	Medicaid or Medicare recipient; Pregnant people; Screen positive/at risk for diet-related chronic disease; Screen positive for food insecurity; Women with at-risk pregnancy	6 months	1 brick-and-mortar, 40 clinic, 6 farm direct	$150 of vouchers per prescription, up to $300 annually	IN
Share Our Strength	CBO	$466,500, 2 years	Child; Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease	6 months	7 brick-and-mortar, 9 clinic, 2 farm direct	$40 of vouchers monthly	LA
The Corbin Hill Food Project, Inc.	CBO	$466,500, 2 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; SNAP recipient	12 months	Pending	$35 of produce every other week	NY
University of California – San Diego	UNI	$466,500, 3 years	Child; Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease	12 months	9 brick-and-mortar, 1 clinic	$105 of vouchers distributed monthly	CA
Wholesome Wave Foundation Charitable Ventures, Inc.	CBO	$329,126, 2 years	Pending	Pending	Pending	Pending	CT

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Eligible Population	Intervention Length	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
Williamson Health & Wellness Center, Inc.	HCO	$466,509, 2 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; SNAP recipient	6 months	Pending	$20 of loyalty card dollars distributed weekly	KY, WV
GusCRR							
Boston University Medical Center	HCO	$437,532, 3 years	Adult; Child; Screen positive for food insecurity	6 months	1 clinic, 1 farm direct	$150 of debit card dollars per month	MA
Chicago Horticultural Society	Other: Museum	$431,250, 2 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; SNAP recipient	40 weeks	4 clinic, 4 farm direct	$15 produce box weekly	IL
Community Farm Alliance	CBO	$517,725, 2 years	Medicaid or Medicare recipient; Pregnant people	21-40 weeks	7 farm direct	$24 of produce or equivalent amount in farmers market tokens weekly	KY
Community Outreach and Patient Empowerment Program, Inc.	CBO	$647,027, 3 years	Screen positive/ at risk for diet-related chronic disease; Screen positive for food insecurity	6 months	Pending	$28 per prescription, up to $112 monthly per household	AZ, NM

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Eligible Population	Intervention Length	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
County of Los Angeles	GOV	$562,500, 3 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; Screen positive for food insecurity; SNAP recipient	6 months	85 brick-and-mortar, 5 clinic	$40 of debit card dollars, up to $240 monthly	CA
Foundation of District 304	CBO	$553,166, 3 years	Medicaid or Medicare recipient; Screen positive/at risk for diet-related chronic disease; SNAP recipient; Spanish-speaking or Latino/a/x	12 months	7 brick-and-mortar, 4 clinic, 5 farm direct	$30 of vouchers per household member per month, up to $150 per household	WA
Fresh Approach	CBO	$129,019, 2 years	Adult; Child; Screen positive/ at risk for diet-related chronic disease; SNAP recipient; Screen positive for food insecurity	16 weeks	3 clinic, 2 farm direct	$10 of farmers market vouchers weekly	CA
Friends of Zenger Farm	CBO	$423,661, 3 years	Screen positive/ at risk for diet-related chronic disease; Screen positive for food insecurity	5 months	6 clinic, 3 farm direct	CSA shares with produce for 2-4 people weekly	OR
Heritage Ranch Inc.	CBO	$431,239, 3 years	Medicaid or Medicare recipient; Filipino, Native Hawaiian; Rural; Screen positive/ at risk for diet-related chronic disease	Pending	1 clinic, 2 farm direct	$500 for length of program	HI

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Eligible Population	Intervention Length	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
Kokua Kalihi Valley Comprehensive Family Services	HCO	$560,318, 3 years	Adult; Screen positive/at risk for diet-related chronic disease; SNAP recipient	36 months	1 clinic, 1 farm direct	$14 of produce for pick-up or home delivery weekly	HI
Mounta Comprehensive Health Corporation	HCO	$619,681, 3 years	Screen positive/ at risk for diet-related chronic disease; SNAP recipient	20 weeks	3 clinics, 3 farm direct	Pending	KT
Reinvestment Partners	CBO	$623,500, 3 years	Screen positive/ at risk for diet-related chronic disease; Screen positive for food insecurity; SNAP recipient	12 months	504 brick-and-mortar, 1 clinic	$40 of loyalty card dollars loaded monthly	NC
The Food Trust	CBO	$570,894, 3 years	Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease	2-12 months	13 brick-and-mortar, 22 clinics, 12 farm direct	$30-$100 per prescription	NJ, PA
Waianae District Comprehensive Health and Hospital Board, Incorporated	HCO	$431,250, 3 years	Child; Medicaid or Medicare recipient; Screen positive/ at risk for diet-related chronic disease; Screen positive for food insecurity; Pregnant people	18 months	1 clinic, 2 farm direct	$50-$60 of account credit or vouchers monthly	HI
Youngstown Neighborhood Development Corporation	CBO	$561,240 3 years	Screen positive for food insecurity	12 months	1 brick-and-mortar	$25 loyalty account credits, up to $150 monthly	OH

[1] Grantee types include: CBO = Community based organization or other non-profit; HCO = Health care organization; GOV = state or local government agency; UNI = University or other higher education organization; Other

[2] Site types and counts as of November 2022

2021 GusNIP and GusCRR Grantees: Nutrition Incentive Large Scale Projects (FLSP)

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Grant Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
GusNIP					
FRESHFARM Markets, Inc.	CBO	$1,426,146, 4 years	1 brick-and-mortar, 81 farm direct	1:1 or 50% off, 1:4 or 80% off; coupon, CSA share or produce box, discount, loyalty account, token	DC, MD, VA
Hunger Solutions Minnesota	CBO	$1,238,830, 4 years	91 farm direct	1:1 or 50% off, 1:2 or 66% off; paper or voucher	MN
Iowa Healthiest State Initiative	CBO	$4,634,700, 2 years	62 brick-and-mortar, 26 farm direct	1:1 or 50% off; paper or voucher	IA
New Mexico Farmers' Marketing Association	CBO	$3,292,364, 4 years	14 brick-and-mortar, 59 farm direct	1:1 or 50% off; CSA share or produce box, discount, paper or voucher, token	NM
Pinnacle Prevention Corp.	CBO	$4,249,344, 4 years	5 brick-and-mortar	1:1 or 50% off; discount, paper or voucher	CA
The Food Basket, Inc.	CBO	$2,637,528, 3 years	43 brick-and-mortar, 13 farm direct	1:1 or 50% off; coupon, discount, paper or voucher	HI
GusCRR					
California Department of Food and Agriculture	GOV	$6,325,464, 3 years	104 farm direct	1:1 or 50% off, 1:20 or 95% off, 1:25 or 96% off; coupon, CSA share or produce box, discount, EBT card, paper or voucher, token	CA
Fair Food Network	CBO	$4,997,950, 2 years	109 brick-and-mortar, 101 farm direct	1:1 or 50% off; coupon, loyalty account, token	MI
Farmers Market Fund	CBO	$3,391,088, 2 years	3 brick-and-mortar, 78 farm direct	1:1 or 50% off; coupon, CSA share or produce box, discount, EBT card, loyalty card, paper or voucher	OR

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Grant Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
Feeding Florida, Inc.	CBO	$4,975,028, 4 years	7 brick-and-mortar, 59 farm direct	1:1 or 50% off; discount, loyalty account, token	FL
Fund for Public Health In New York, Inc.	GOV	$4,983,232, 4 years	Pending	1:1 or 50% off; loyalty card	NY
Jackson Medical Mall Foundation	CBO	$5,000,000, 4 years	9 brick-and-mortar, 9 farm direct	1:1 or 50% off; coupon	MS
Local Environmental Agriculture Project, Inc.	CBO	$2,005,502, 2 years	7 brick-and-mortar, 61 farm direct	1:1 or 50% off; coupon, CSA share or produce box, discount, EBT card, paper or voucher, token	VA
Mid-America Regional Council Community Services Corporation	CBO	$4,635,648, 3 years	71 brick-and-mortar, 13 farm direct	1:1 or 50% off; coupon, discount, loyalty account, token	KS, MO
Produce Perks Midwest, Inc.	CBO	$5,766,749, 3 years	34 brick-and-mortar, 90 farm direct	1:1 or 50% off; coupon, CSA share or produce box, discount, loyalty account, token	OH
Reinvestment Partners	CBO	$5,000,000, 2 years	504 brick-and-mortar	$40 per purchase	NC
The Experimental Station: 6100 Blackstone	CBO	$3,000,000, 3 years	5 brick-and-mortar, 1 farm direct	1:1 or 50% off; paper or voucher	IL
The Food Basket, Inc.	CBO	$5,000,000, 3 years	43 brick-and-mortar, 13 farm direct	1:1 or 50% off; coupon, discount, paper voucher	HI
The Food Trust	CBO	$2,003,994, 3 years	24 brick-and-mortar, 29 farm direct	1:1 or 50% off, 3:2 or 40% off, 2:1 or 33% off, 5:2 or 30% off; coupon, discount, loyalty account, paper or voucher	NJ, PA

[1] Grantee types include: CBO = Community based organization or other non-profit; HCO = Health care organization; GOV = state or local government agency; UNI = University or other higher education organization; Other

[2] Site types and counts as of November 2022

2021 GusNIP and GusCRR Grantees: Nutrition Incentive Standard Projects (FIP)

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
GusNIP					
Arkansas Coalition for Obesity Prevention	CBO	$500,000, 4 years	39 brick-and-mortar	1:1 or 50% off; discount	AR
Auburn University	UNI	$500,000, 3 years	3 brick-and-mortar, 7 farm direct	1:1 or 50% off; coupon, discount, token	AL
City Green, Inc.	CBO	$500,000, 3 years	3 brick-and-mortar, 20 farm direct	1:1 or 50% off; coupon, EBT card, paper or voucher, token	NJ
City of Boston	GOV	$500,000, 3 years	6 brick-and-mortar	1:1 or 50% off; EBT card	MA
Community Services Unlimited Inc.	CBO	$500,000, 4 years	1 brick-and-mortar, 1 farm direct	1:1 or 50% off, 1:3 or 75% off; discount	CA
County of Yolo	GOV	$500,000, 4 years	5 brick-and-mortar	1:1 or 50% off; discount	CA
Harvest Home Farmer's Market	CBO	$500,000, 4 years	13 farm direct	1:4 or 80% off; coupon	NY
In-Advance/Saba Grocers	CBO	$500,000, 2 years	Pending	1:5 or 83% off; loyalty account	CA
Together We Can	CBO	$482,402, 2 years	2 brick-and-mortar, 2 farm direct	1:1 or 50% off; coupon, token	NV
Wholesome Wave Georgia Incorporated	CBO	$500,000, 3 years	6 brick-and-mortar, 64 farm direct	1:1 or 50% off; discount, token	GA
GusCRR					
Community Food and Agriculture Coalition	CBO	$622,673, 3 years	21 farm direct	1:1 or 50% off; paper or voucher, token	MT

Grantee	Grantee Type[1]	Total Grant Amount, Time Period	Type and # of Sites[2]	Match Amount and Mechanism	State(s) Reached
Michigan Physical Fitness, Health and Sports Foundation, Inc.	CBO	$545,891, 4 years	4 farm direct	1:3 or 75% off; CSA share or produce box	MI
Presence Chicago Hospitals Network	HCO	$650,000, 3 years	1 brick-and-mortar, 1 farm direct	1:2 or 66% off; CSA share or produce box, paper or voucher, token	IL
Sustainable Food Center	CBO	$650,000, 3 years	4 brick-and-mortar, 1 farm direct	1:1 or 50% off; discount, loyalty card, paper or voucher	TX
Tulsa Community Foundation	CBO	$650,000, 1 year	8 brick-and-mortar	1:1 or 50% off; coupon	OK
Wholesome Wave Georgia Incorporated	CBO	$646,781, 2 years	4 brick-and-mortar, 56 farm direct	1:1 or 50% off; discount, token	GA
GusNIP					
Community Partnership of Ozark, Inc.	CBO	$100,000, 3 years	6 farm direct	1:1 or 50% off; CSA share or produce box, paper or voucher, token	MO
Healthy Communities Coalition of Lyon and Storey Counties	CBO	$100,000, 2 years	1 farm direct	1:1 or 50% off; CSA share or produce box	NV

[1] Grantee types include: CBO = Community based organization or other non-profit; HCO = Health care organization; GOV = state or local government agency; UNI = University or other higher education organization; Other

[2] Site types and counts as of November 2022

Appendix 6. Nutrition Incentive Results Tables

Nutrition Incentive Site-level Results Tables

Table A1. Financial Instruments[1] for Incentive Redemption by Site Type for NI Projects (2021-2022)[2]

Financial Instrument	B&M (n = 1,078)	FD (n = 1,850)	Total NI (N = 2,928)
CSA Share or Produce Box n (%)	5 (0.5%)	37 (2.0%)	42 (1.4%)
Discount at Register n (%)	212 (19.7%)	190 (10.3%)	402 (13.7%)
EBT Card n (%)	18 (1.7%)	19 (1.0%)	37 (1.3%)
Loyalty Account[3] n (%)	382 (35.4%)	37 (2.0%)	419 (14.3%)
Paper Voucher or Coupon n (%)	464 (43.0%)	858 (46.4%)	1,322 (45.2%)
Token n (%)	6 (0.6%)	769 (41.6%)	775 (26.5%)
Other n (%)	2 (0.2%)	0 (0%)	2 (0.1%)

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

[1] Financial instruments are the methods that sites use to distribute incentives.

[2] Sites that did not report on financial instruments 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.

[3] Loyalty account includes sites with online loyalty accounts, loyalty cards, and/or ID-based loyalty accounts.

Table A2. SNAP Purchases/Products Eligible to Trigger Incentives by Site Type for NI Projects (2021-2022)[1]

Eligible SNAP Purchases/Products	B&M (n = 1,078)	FD (n = 1,850)	Total NI (N = 2,928)
All FVs (fresh, canned, frozen, dried, plants, and/or seeds) n (%)	242 (22.4%)	26 (1.4%)	268 (9.2%)
All SNAP Eligible Items n (%)	283 (26.3%)	1,620 (87.6%)	1,903 (65.0%)
Fresh FVs Only n (%)	410 (38.0%)	137 (7.4%)	547 (18.7%)
Only State or Regionally Grown FVs n (%)	136 (12.6%)	64 (3.5%)	200 (6.8%)
Other n (%)	7 (0.6%)	7 (0.4%)	14 (0.5%)

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

[1] 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 (2021-2022)[1]

Eligible FVs	B&M (n = 1,078)	FD (n = 1,850)	Total NI (N = 2,928)
Fresh FVs Only n (%)	490 (45.5%)	714 (38.6%)	1,204 (41.1%)
All FVs (fresh, canned, frozen, dried, plants, and/or seeds) n (%)	446 (41.4%)	543 (29.4%)	989 (33.8%)
Only State or Regionally Grown FVs n (%)	142 (13.2%)	592 (32.0%)	734 (25.1%)
Other n (%)	0 (0%)	7 (0.4%)	7 (0.2%)

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

[1] 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.

Table A4. Nutrition Education Activities Offered by Site Type for NI Projects (2021-2022)[1]

Nutrition Education Activities	B&M (n = 297)	FD (n = 890)	Total NI (N 1,187)
1:1 or Small Group Nutrition Education n (%)	36 (12.1%)	59 (6.6%)	95 (8.0%)
Partnering Nutrition Education[2] n (%)	33 (11.1%)	275 (30.9%)	308 (25.9%)
Cooking Demonstrations n (%)	279 (93.9%)	759 (85.3%)	1,038 (87.4%)
Food Navigation or Tours n (%)	25 (8.4%)	149 (16.7%)	174 (14.7%)
E-interventions n (%)	85 (28.6%)	41 (4.6%)	126 (10.6%)
Other[3] n (%)	14 (4.7%)	91 (10.2%)	105 (8.8%)

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

[1] 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). A total of 1,735 sites selected "none" as a response option (B&M = 781, FD = 954). Cell percentages include all responses that were not "none."

[2] Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) offer educational programming.

[3] Other responses included items such as: gardening education, children specific programming, nutrition education including physical activity, canning and preserving, etc.

Table A5. Support Services Offered by Site Type for NI Projects (2021-2022)[1]

Support Services	B&M (n = 492)	FD (n = 508)	Total NI (N = 1,000)
Resource Referrals n (%)	86 (17.5%)	279 (54.9%)	365 (36.5%)
Produce Delivery and Transportation n (%)	472 (95.9%)	186 (36.6%)	658 (65.8%)
Health Fairs and Other Community Building Activities n (%)	1 (0.2%)	44 (8.7%)	45 (4.5%)
Voter Registration and Other Civic Engagement n (%)	4 (0.8%)	86 (16.9%)	90 (9.0%)
COVID Testing or Vaccination n (%)	35 (7.1%)	96 (18.9%)	131 (13.1%)
Other[2] n (%)	2 (0.4%)	67 (13.2%)	69 (6.9%)

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

[1] 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). A total of 1,924 sites (B&M = 586, FD = 1,338) selected "none" as a response option. Cell percentages include all responses that were not "none."

[2] Other responses included items such as: promotion of other programs, skill building (e.g., computer classes), behavioral health screenings, etc.

Table A6. Marketing Activities Offered by Site Type for NI Projects (2021-2022)[1]

Marketing Activities	B&M (n = 873)	FD (n = 1,776)	Total NI (N = 2,649)
On-site Signage or Announcements n (%)	620 (71.0%)	1,435 (80.8%)	2,055 (77.6%)
Direct Promotions Distributed by Direct Mail, Email, Phone n (%)	473 (54.2%)	912 (51.4%)	1,385 (52.3%)
Public Promotions n (%)	219 (25.1%)	355 (20.0%)	574 (21.7%)
Multi-lingual Promotions n (%)	170 (19.5%)	480 (27.0%)	650 (24.5%)
Directories n (%)	42 (4.8%)	180 (10.1%)	222 (8.4%)
Online Advertisements n (%)	321 (36.8%)	886 (49.9%)	1,207 (45.6%)
Other[2] n (%)	10 (1.1%)	47 (2.6%)	57 (2.2%)

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

[1] 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). A total of 274 sites (B&M = 205, FD = 69) selected "none" as a response option. Cell percentages include all responses that were not "none."

[2] Other responses included items such as: special events, promotion with partnering agencies (e.g., senior's center, food banks, neighborhood associations), etc.

Table A7. Annual Incentive Distribution and Redemption by Site Type for NI Projects (2021-2022)[1]

Incentive Distribution and Redemption	GusNIP NI (n = 2,223)	GusCRR NI (n = 1,171)	B&M (n = 1,072)	FD (n = 1,856)	All Sites (N = 2,928)
Annual Incentives Distributed					
Total	$47,109,371	$17,915,218	$44,328,744	$20,695,844	$65,024,589
Mean	$21,192	$15,299	$41,351	$11,536	$22,688
Annual Incentives Redeemed					
Total	$26,413,502	$13,225,830	$21,238,041	$18,401,291	$39,639,332
Mean	$11,882	$11,294	$19,812	$10,257	$13,830
Annual Redemption Rate					
Total[2]	56.07%	73.82%	47.91%	88.91%	60.96%
Mean[3]	91.23%	91.58%	85.77%	94.75%	91.63%

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

[1] Number of sites (n) in each column header is based on number of sites that have data for this metric, not the total number of sites participating. 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 fundings sources.

[2] Total annual redemption rate is calculated as the total annual incentives redeemed divided by the total annual incentives distributed in each column and represented as a percentage. Note that this is a different calculation from mean annual redemption rate.

[3] The mean presented here is the average annual redemption rate for all sites with complete data for annual redemption rate. Annual redemption rate is the annual value of incentives redeemed divided by the annual value of incentives distributed for every site with a non-zero value of annual incentives distributed and represented as a percentage. Note that this is a different calculation from total annual redemption rate. The majority of sites submit redemption data even when it is zero, but some do not submit these data given unique project models so the mean annual redemption rate per site may be positively skewed.

Nutrition Incentive Participant-Level Results Tables

Table A8. Sociodemographic Characteristics of NI Project Participants (N = 7,641) by Site Type (2021-2022)[1]

Sociodemographic Characteristics	Brick-and-Mortar (n = 2,935)	Farm Direct (n = 3,682)	Uncategorized[2] (n = 1,024)	Overall (N = 7,641)
Age (Years)				
n	2,486	3,267	994	6,747
Mean (SD)	44.18 (16.22)	45.59 (16.39)	46.20 (16.38)	45.16 (16.34)
Age Group (Years) n (%)				
18 to 24	251 (10.1%)	215 (6.4%)	76 (8.7%)	542 (8.0%)
25 to 34	564 (22.7%)	816 (24.1%)	187 (21.3%)	1,567 (23.2%)
35 to 44	618 (24.8%)	830 (24.5%)	208 (23.7%)	1,656 (24.5%)
45 to 64	718 (28.9%)	930 (27.5%)	279 (31.8%)	1,929 (28.6%)
65 and over	338 (13.6%)	592 (17.5%)	126 (14.4%)	1,054 (15.6%)
Missing[3]	446	299	148	893

Sociodemographic Characteristics	Brick-and-Mortar (n = 2,935)	Farm Direct (n = 3,682)	Uncategorized[2] (n = 1,024)	Overall (N = 7,641)
Gender n (%)				
Female	2,094 (74.1%)	2,610 (71.9%)	715 (74.2%)	5,419 (73.1%)
Male	627 (22.2%)	783 (21.6%)	198 (20.5%)	1,608 (21.7%)
Non-binary/Third Gender	35 (1.2%)	127 (3.5%)	14 (1.5%)	176 (2.4%)
Prefer to Self-describe	12 (0.4%)	24 (0.7%)	7 (0.7%)	43 (0.6%)
Prefer Not to Answer	57 (2.0%)	84 (2.3%)	30 (3.1%)	171 (2.3%)
Missing	110	54	60	224
Race n (%)				
American Indian or Alaskan Native	87 (3.2%)	59 (1.7%)	17 (1.9%)	163 (2.3%)
Asian	165 (6.1%)	152 (4.3%)	52 (5.8%)	369 (5.1%)
Black or African American	593 (21.9%)	535 (15.0%)	146 (16.2%)	1,274 (17.7%)
More Than One Race	242 (8.9%)	169 (4.7%)	64 (7.1%)	475 (6.6%)
Native Hawaiian	107 (4.0%)	13 (0.4%)	26 (2.9%)	146 (2.0%)
Other	143 (5.3%)	171 (4.8%)	24 (2.7%)	338 (4.7%)
Other Pacific Islander	15 (0.6%)	10 (0.3%)	3 (0.3%)	28 (0.4%)
White	1,095 (40.4%)	2,120 (59.5%)	463 (51.2%)	3,678 (51.2%)
Don't Know/Not Sure	75 (2.8%)	71 (2.0%)	19 (2.1%)	165 (2.3%)
Prefer Not to Answer	186 (6.9%)	266 (7.5%)	90 (10.0%)	542 (7.6%)
Missing	227	116	120	463
Ethnicity n (%)				
Hispanic or Latino/a/x	611 (21.7%)	728 (20.1%)	191 (19.8%)	1,530 (20.7%)
Non-Hispanic or Latino/a/x	2,102 (74.5%)	2,776 (76.6%)	713 (74.0%)	5,591 (75.4%)
Prefer Not to Answer	109 (3.9%)	122 (3.4%)	59 (6.1%)	290 (3.9%)
Missing	113	56	61	230
Total[4] n (%)	2,935 (38.4%)	3,682 (48.2%)	1,024 (13.4%)	7,641

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

[1] 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.

[2] Participants considered "uncategorized" if they did not specify a type of site attached to the location where they took the survey (e.g., many participants completed the survey online, so identifying a site location where the survey occurred was not feasible).

[3] Missing values for age group, gender, ethnicity, and race are not included in percentage calculations.

[4] Total displayed as row percentage. Example: Of the total sample, 38.4% of participants can be attributed to brick-and-mortar sites, 46.6% to farm direct sites, and 15.0% were uncategorized.

Table A9. Frequency and Percentage of Food Security Status Among NI Project Participants (N = 7,370) by Sociodemographic Characteristics (2021-2022)[1,2]

Sociodemographic Characteristics	Food Secure (n = 3,399)	Food Insecure (n = 3,971)
Age (Years)		
n	3,057	3,590
Mean (SD)	44.70 (17.07)	44.70 (15.63)
Age Group (Years) n (%)		
18 to 24	244 (45.8%)	289 (54.2%)
25 to 34	726 (47.0%)	818 (53.0%)
35 to 44	760 (46.3%)	881 (53.7%)
45 to 64	768 (40.3%)	1,138 (59.7%)
65 and over	559 (54.6%)	465 (45.4%)
Missing	342	380
Gender n (%)		
Female	2,444 (45.8%)	2,896 (54.2%)
Male	749 (47.2%)	837 (52.8%)
Non-binary/Third Gender	74 (43.0%)	98 (57.0%)
Prefer to Self-describe	17 (39.5%)	26 (60.5%)
Prefer Not to Answer	89 (53.0%)	79 (47.0%)
Missing	24	37
Race n (%)		
American Indian or Alaskan Native	57 (35.0%)	106 (65.0%)
Asian	210 (57.4%)	156 (42.6%)
Black or African American	559 (45.2%)	677 (54.8%)
More Than One Race	198 (42.0%)	273 (58.0%)
Native Hawaiian	44 (30.1%)	102 (69.9%)
Other	127 (39.0%)	199 (61.0%)
Other Pacific Islander	11 (39.3%)	17 (60.7%)
White	1,733 (47.6%)	1,905 (52.4%)
Don't Know/Not Sure	72 (44.2%)	91 (55.8%)
Prefer Not to Answer	266 (50.1%)	265 (49.9%)
Missing	117	176
Ethnicity n (%)		
Hispanic or Latino/a/x	574 (37.9%)	940 (62.1%)
Non-Hispanic or Latino/a/x	2,649 (48.0%)	2,865 (52.0%)
Prefer Not to Answer	150 (54.2%)	127 (45.8%)
Missing	26	39

Sociodemographic Characteristics	Food Secure (n = 3,399)	Food Insecure (n = 3,971)
Region[3] n (%)		
North Central	843 (45.6%)	1,004 (54.4%)
Northeast	542 (45.9%)	639 (54.1%)
Southern	673 (47.5%)	745 (52.5%)
Western	1,341 (45.9%)	1,583 (54.1%)
Total[4] n (%)	3,399 (46.1%)	3,971 (53.9%)

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

[1] 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.

[2] Table displays row percentages (age group, gender, ethnicity, race, region, and total sample). Example: Of participants aged 18 to 24, 45.8% were food secure and 54.2% were food insecure. Missing values for age group, gender, ethnicity, and race are not included in percentage calculations.

[3] Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

[4] NI participants without enough data to compute food insecurity (n = 79) are not included in this table.

Table A10. Daily FVs Cup Equivalents Among NI Participants (N = 6,114 - 6,314) Across Sociodemographic Characteristics (2021-2022)[1]

Sociodemographic Characteristics	Fruits and Vegetables[1] (n = 6,114)	Fruits Only (n = 6,314)	Vegetables[2] Only (n = 6,176)
Age Group (Years) Mean (SD)			
18 to 24	2.58 (0.85)	1.09 (0.58)	1.51 (0.44)
25 to 34	2.67 (0.85)	1.15 (0.58)	1.57 (0.47)
35 to 44	2.78 (0.86)	1.12 (0.52)	1.69 (0.53)
45 to 64	2.81 (0.9)	1.1 (0.53)	1.71 (0.55)
65 and over	2.69 (0.79)	1.0 (0.42)	1.66 (0.51)
Gender Mean (SD)			
Female	2.66 (0.81)	1.09 (0.5)	1.59 (0.48)
Male	2.99 (0.97)	1.14 (0.62)	1.86 (0.58)
Race Mean (SD)			
American Indian or Alaskan Native	2.53 (0.81)	1.03 (0.5)	1.54 (0.48)
Asian	2.72 (0.85)	1.05 (0.5)	1.65 (0.51)
Black or African American	2.72 (0.9)	1.13 (0.59)	1.62 (0.53)
More Than One Race	2.84 (0.91)	1.16 (0.58)	1.69 (0.54)
Native Hawaiian	2.59 (0.86)	1.09 (0.63)	1.56 (0.50)
Other	2.88 (0.86)	1.12 (0.48)	1.76 (0.53)
Other Pacific Islander	2.42 (0.69)	1.01 (0.44)	1.49 (0.44)
White	2.73 (0.85)	1.09 (0.5)	1.65 (0.51)
Don't Know/Not Sure	2.74 (0.86)	1.05 (0.44)	1.69 (0.56)
Prefer Not to Answer	2.74 (0.85)	1.11 (0.53)	1.65 (0.53)

Sociodemographic Characteristics	Fruits and Vegetables[1] (n = 6,114)	Fruits Only (n = 6,314)	Vegetables[2] Only (n = 6,176)
Ethnicity Mean (SD)			
Hispanic or Latino/a/x	2.66 (0.81)	1.06 (0.48)	1.63 (0.5)
Non-Hispanic or Latino/a/x	2.75 (0.87)	1.11 (0.54)	1.65 (0.52)
Prefer Not to Answer	2.79 (0.94)	1.07 (0.51)	1.70 (0.57)
Region[3] Mean (SD)			
North Central	2.65 (0.81)	1.07 (0.49)	1.61 (0.49)
Northeast	2.79 (0.86)	1.11 (0.54)	1.69 (0.54)
Southern	2.70 (0.88)	1.08 (0.53)	1.63 (0.51)
Western	2.79 (0.88)	1.12 (0.55)	1.67 (0.52)
Total Mean (SD)	2.73 (0.86)	1.10 (0.53)	1.65 (0.52)

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

[1] 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.

[2] Vegetables calculated with legumes and without french fries.

[3] Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

Table A11. Daily FV Frequency Among Non-Cis Gendered and Preferred to Self-Describe NI Participants (N = 173; 2021-2022)

Response n (%)	Fruit juice[1]	Fruit	Salad	Fried potatoes	Other potatoes	Beans	Vegetables[2]	Salsa	Pizza	Tomato sauce
Never	49 (22.0%)	3 (1.4%)	8 (3.6%)	23 (10.3%)	17 (7.6%)	24 (10.8%)	5 (2.2%)	51 (22.9%)	38 (17.0%)	29 (13.0%)
1 time last month	36 (16.1%)	0 (0%)	12 (5.4%)	36 (16.1%)	31 (13.9%)	16 (7.2%)	4 (1.8%)	37 (16.6%)	59 (26.5%)	40 (17.9%)
2-3 times last month	45 (20.2%)	25 (11.2%)	32 (14.4%)	52 (23.3%)	56 (25.1%)	44 (19.7%)	18 (8.1%)	46 (20.6%)	72 (32.3%)	72 (32.3%)
1 time per week	22 (9.9%)	8 (3.6%)	19 (8.5%)	37 (16.6%)	34 (15.3%)	24 (10.8%)	17 (7.6%)	15 (6.7%)	25 (11.2%)	30 (13.5%)
2 times per week	18 (8.1%)	23 (10.3%)	33 (14.8%)	38 (17.0%)	42 (18.8%)	48 (21.5%)	14 (6.3%)	31 (13.9%)	9 (4.0%)	26 (11.7%)
3-4 times per week	24 (10.8%)	44 (19.7%)	49 (22.0%)	21 (9.4%)	27 (12.1%)	38 (17.0%)	37 (16.6%)	22 (9.9%)	8 (3.6%)	16 (7.2%)
5-6 times per week	7 (3.1%)	34 (15.3%)	25 (11.2%)	9 (4.0%)	5 (2.2%)	14 (6.3%)	41 (18.4%)	7 (3.1%)	8 (3.6%)	3 (1.4%)
1 time per day	8 (3.6%)	32 (14.4%)	23 (10.3%)	4 (1.8%)	4 (1.8%)	5 (2.2%)	32 (14.4%)	5 (2.2%)	1 (0.5%)	4 (1.8%)
2 or more times per day	4 (1.8%)	50 (22.4%)	19 (8.5%)	2 (0.9%)	2 (0.9%)	7 (3.1%)	52 (23.3%)	7 (3.14%)	0 (0%)	1 (0.5%)
2-3 times per day	3 (1.4%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6 or more times per day	3 (1.4%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prefer not to respond	4 (1.8%)	3 (1.4%)	2 (0.9%)	1 (0.5%)	5 (2.2%)	3 (1.4%)	3 (1.4%)	2 (0.9%)	2 (0.9%)	2 (0.9%)

N = total number in sample; n = number in subsample; NI = nutrition incentive; FV = fruit and vegetable

[1] 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"; "6 or more times per day").

[2] Vegetables calculated with legumes and without french fries.

Table A12. Perceived Health Status Among NI Project Participants (N = 7,070) by Program Participation Length (2021-2022)

Perceived Health Status n (%)	First-time participants (n = 1,332)	< 6 Months Participation (n = 2,289)	≥ 6 Months Participation (n = 3,449)	Total NI (N = 7,070)
Poor	81 (6.3%)	139 (6.2%)	199 (5.9%)	419 (6.1%)
Fair	413 (32.1%)	584 (26.1%)	923 (27.3%)	1,920 (27.8%)
Good	502 (39.1%)	900 (40.3%)	1,310 (38.8%)	2,712 (39.3%)
Very Good	201 (15.6%)	437 (19.6%)	692 (20.5%)	1,330 (19.3%)
Excellent	76 (5.9%)	155 (6.9%)	227 (6.7%)	458 (6.6%)
Don't Know/Prefer Not to Answer	12 (0.9%)	19 (0.9%)	25 (0.7%)	56 (0.8%)
Missing[1]	47	55	73	175
Total[2] n (%)	1,332 (18.8%)	2,289 (32.4%)	3,449 (48.8%)	7,070

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

[1] Missing values for perceived health status are not included in percentage calculations.

[2] Total displayed as row percentage for duration. Example: Of the total sample, 18.8% were first-time participants, 32.4% participated for less than 6 months, and 48.8% participated for 6 months or more.

Table A13. Program Satisfaction Among NI Project Participants (N = 7,641) by Site Type (2021-2022)

Program Satisfaction n (%)	Brick-and-Mortar (n = 2,935)	Farm Direct (n = 3,682)	Uncategorized (n = 1,024)	Overall (N = 7,641)
Very Negative	12 (0.4%)	11 (0.3%)	14 (1.4%)	37 (0.5%)
Negative	21 (0.8%)	10 (0.3%)	18 (1.9%)	49 (0.7%)
Neutral	257 (9.3%)	122 (3.5%)	90 (9.3%)	469 (6.5%)
Positive	719 (25.9%)	722 (20.5%)	207 (21.4%)	1,648 (22.7%)
Very Positive	1,657 (59.7%)	2,574 (72.9%)	513 (53.1%)	4,744 (65.2%)
Don't Know/Prefer Not to Answer	111 (4.0%)	91 (2.6%)	124 (12.8%)	326 (4.5%)
Missing[1]	158	152	58	368
Total[2] n (%)	2,935 (38.4%)	3,682 (48.2%)	1,024 (13.4%)	7,641

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

[1] Missing values for program satisfaction are not included in percentage calculations.

[2] Total displayed as row percentage for site type. Example: Of the total sample, 38.4% were brick-and-mortar participants, 46.6% were farm direct participants, and 15.0% were uncategorized).

Table A14. COVID-19 Impacts Among NI Project Participants (N = 7,073) by Program Participation Length (2021-2022)

COVID-19 Impacts	First-time participants (n = 1,332)	< 6 Months Participation (n = 2,289)	≥ 6 Months Participation (n = 3,449)	Total NI (N = 7,070)
COVID-19 Made it Hard to Make Ends Meet n (%)				
Strongly Disagree	77 (6.1%)	133 (6.3%)	236 (7.5%)	446 (6.8%)
Disagree	163 (12.9%)	226 (10.6%)	438 (13.9%)	827 (12.7%)
Neither Disagree nor Agree	233 (18.5%)	443 (20.8%)	562 (17.8%)	1,238 (18.9%)
Agree	407 (32.3%)	714 (33.6%)	1,052 (33.4%)	2,173 (33.2%)
Strongly Agree	350 (27.8%)	553 (26.0%)	784 (24.9%)	1,687 (25.8%)
Don't Know/ Prefer Not to Answer	30 (2.4%)	59 (2.8%)	77 (2.4%)	166 (2.5%)
Missing[1]	72	161	300	533
COVID-19 Made it Hard to Purchase FVs n (%)				
Strongly Disagree	74 (5.9%)	173 (8.1%)	301 (9.6%)	548 (8.4%)
Disagree	283 (22.4%)	500 (23.5%)	872 (27.7%)	1,655 (25.3%)
Neither Disagree nor Agree	317 (25.1%)	521 (24.5%)	705 (22.4%)	1,543 (23.6%)
Agree	357 (28.3%)	639 (30.0%)	855 (27.1%)	1,851 (28.3%)
Strongly Agree	205 (16.3%)	248 (11.7%)	360 (11.4%)	813 (12.4%)
Don't Know/ Prefer Not to Answer	25 (2.0%)	47 (2.2%)	57 (1.8%)	129 (2.0%)
Missing	71	161	299	531
COVID-19 has Resulted in Utilization of Emergency Food Outlets n (%)				
No	570 (45.2%)	922 (43.3%)	1,199 (38.1%)	2,691 (41.2%)
Yes	646 (51.2%)	1,133 (53.3%)	1,856 (58.9%)	3,635 (55.6%)
Don't Know/ Prefer Not to Answer	45 (3.6%)	72 (3.4%)	96 (3.0%)	213 (3.3%)
Missing	71	162	298	531
Total[2] n (%)	1,332 (18.8%)	2,289 (32.4%)	3,449 (48.8%)	7,070

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

[1] Missing values for program satisfaction are not included in percentage calculations.

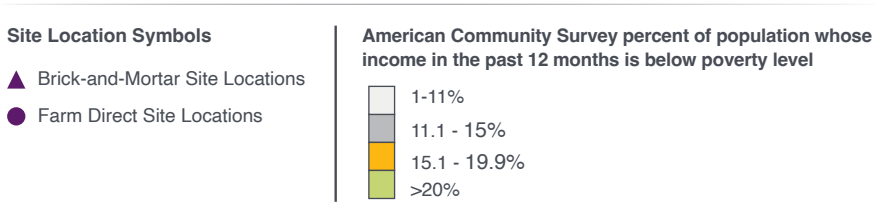
[2] Total displayed as row percentage for site type. Example: Of the total sample, 38.4% were brick-and-mortar participants, 46.6% were farm direct participants, and 15.0% were uncategorized).

Appendix 7. Regional Site Location Maps by Poverty Level (2021-2022)

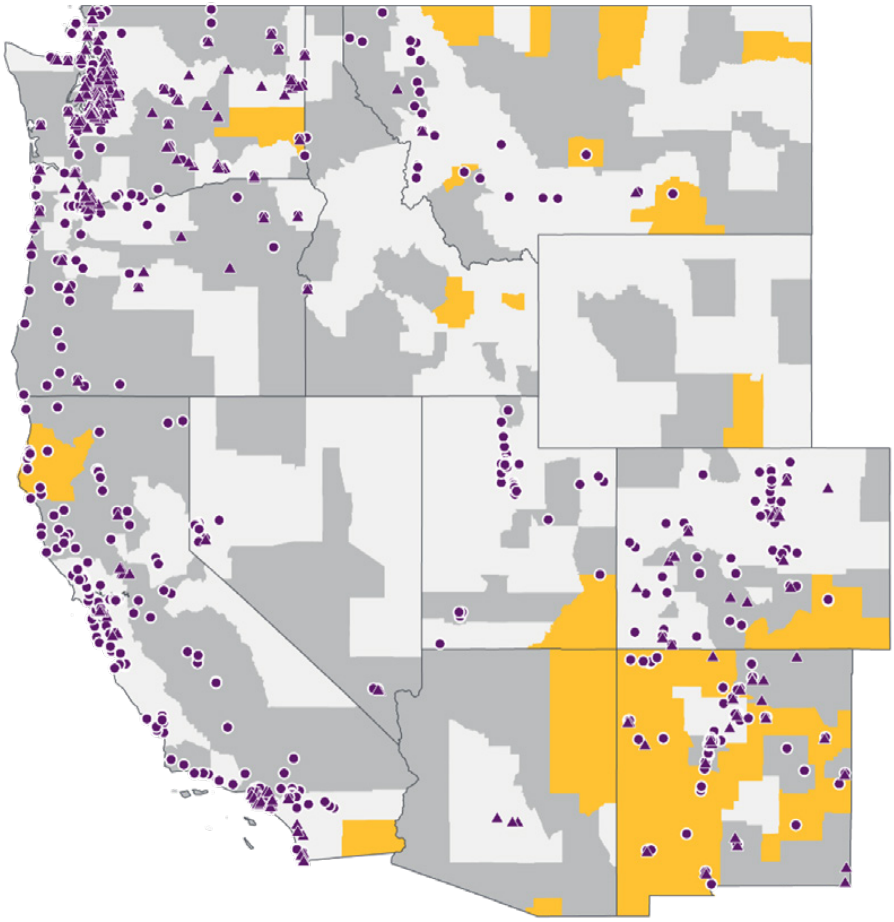
The following maps show site locations by project type (NI and PPR) separated by region as defined by USDA NIFA. Site locations are layered over county-level data that depict the percent of population whose income in the past 12 months is below poverty level. Similarly, the accompanying tables report the percent poverty in counties where GusNIP project sites are located. Maps and tables utilize poverty data 5-year estimates from the 2020 **American Community Survey** (e.g., Census data).

Nutrition Incentive Projects

NI Map Legend



Western Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

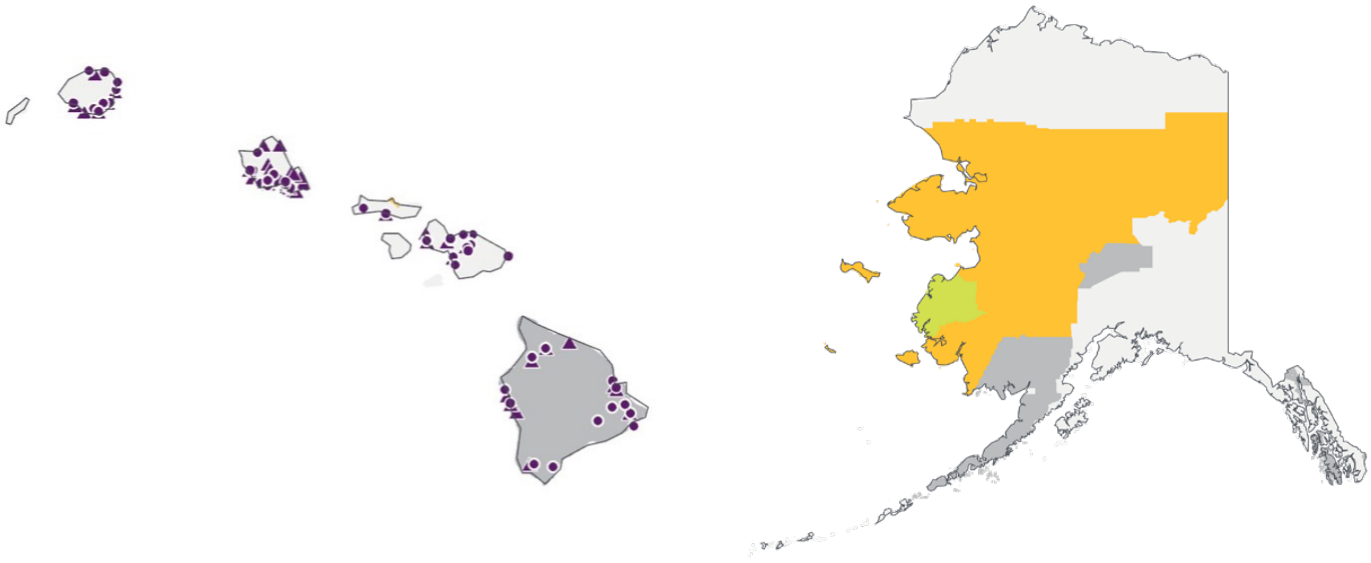
- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- >20%

State[1]	Average % Population Below Poverty by NI Site Locations
Alaska	N/A[2]
Arizona	12.5%
California	13.0%
Colorado	11.5%
Hawaii	9.7%
Idaho	18.1%
Montana	14.1%
New Mexico	20.3%
Nevada	11.5%
Oregon	13.3%
Utah	10.4%
Washington	10.6%
Wyoming	N/A
Western Region Average	**13.2%**

[1]In Y3 there were no active NI projects in Western territories eligible for SNAP/NAP (Guam, American Samoa, and the Commonwealth of Northern Mariana Islands).
[2]N/A = No GusNIP NI projects in the state

Hawaii

Alaska[1]



Site Location Symbols

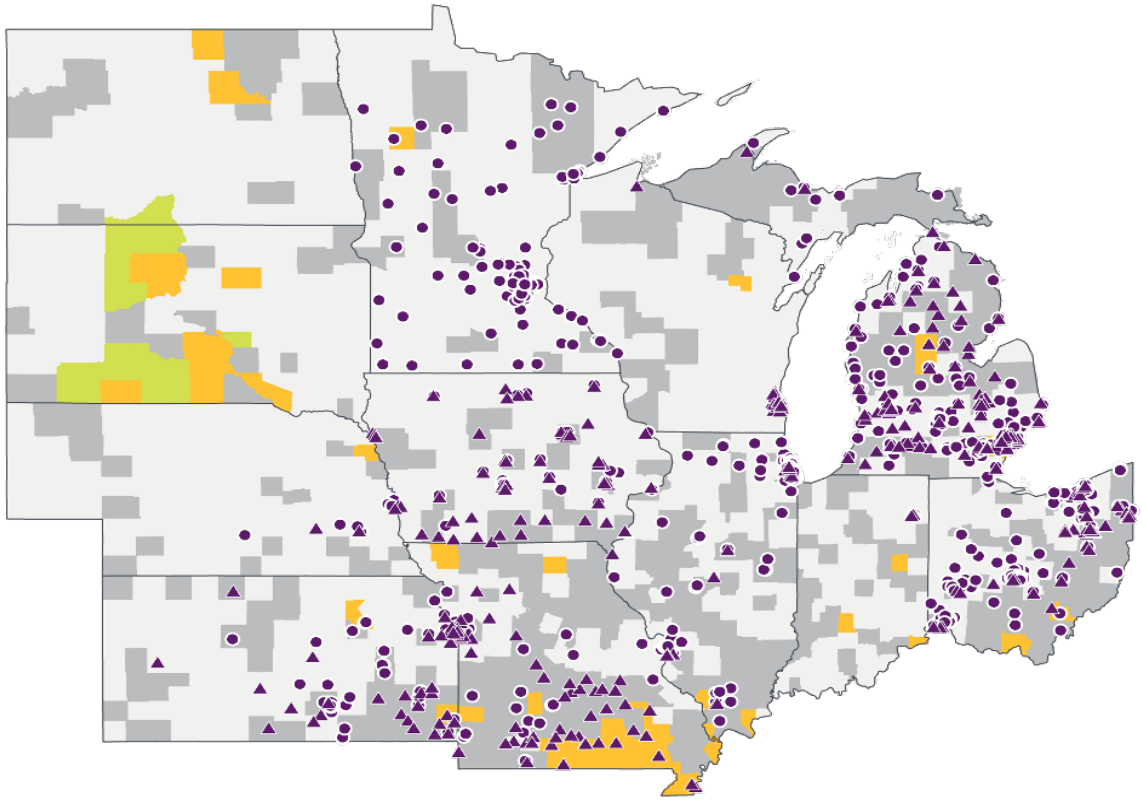
- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- >20%

[1] In Y3, there were no GusNIP NI projects in Alaska.

North Central Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations

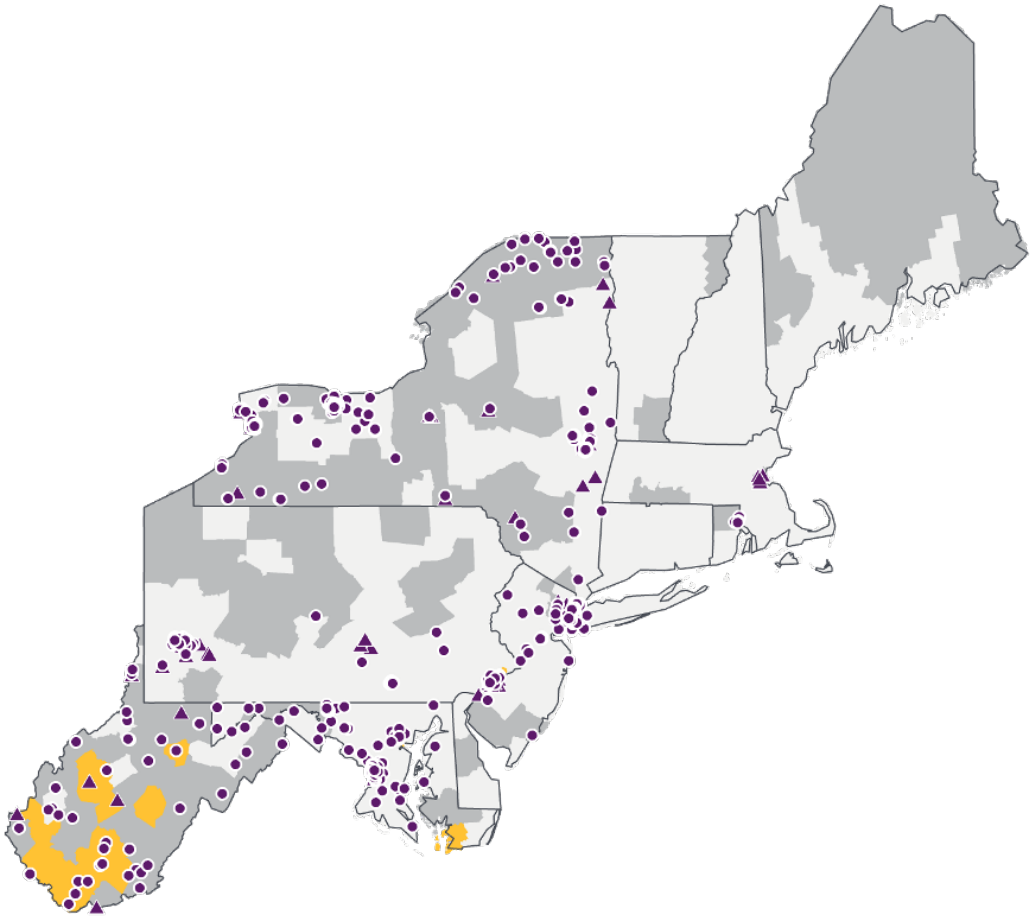
American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- >20%

State	Average % Population Below Poverty by NI Site Locations
Illinois	14.3%
Indiana	12.6%
Iowa	12.2%
Kansas	13.9%
Michigan	14.8%
Minnesota	10.3%
Missouri	15.9%
Nebraska	10.8%
North Dakota	N/A[1]
Ohio	14.8%
South Dakota	N/A
Wisconsin	15.7%
North Central Region Average	**13.5%**

[1]N/A = No GusNIP NI projects in the state

Northeastern Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations

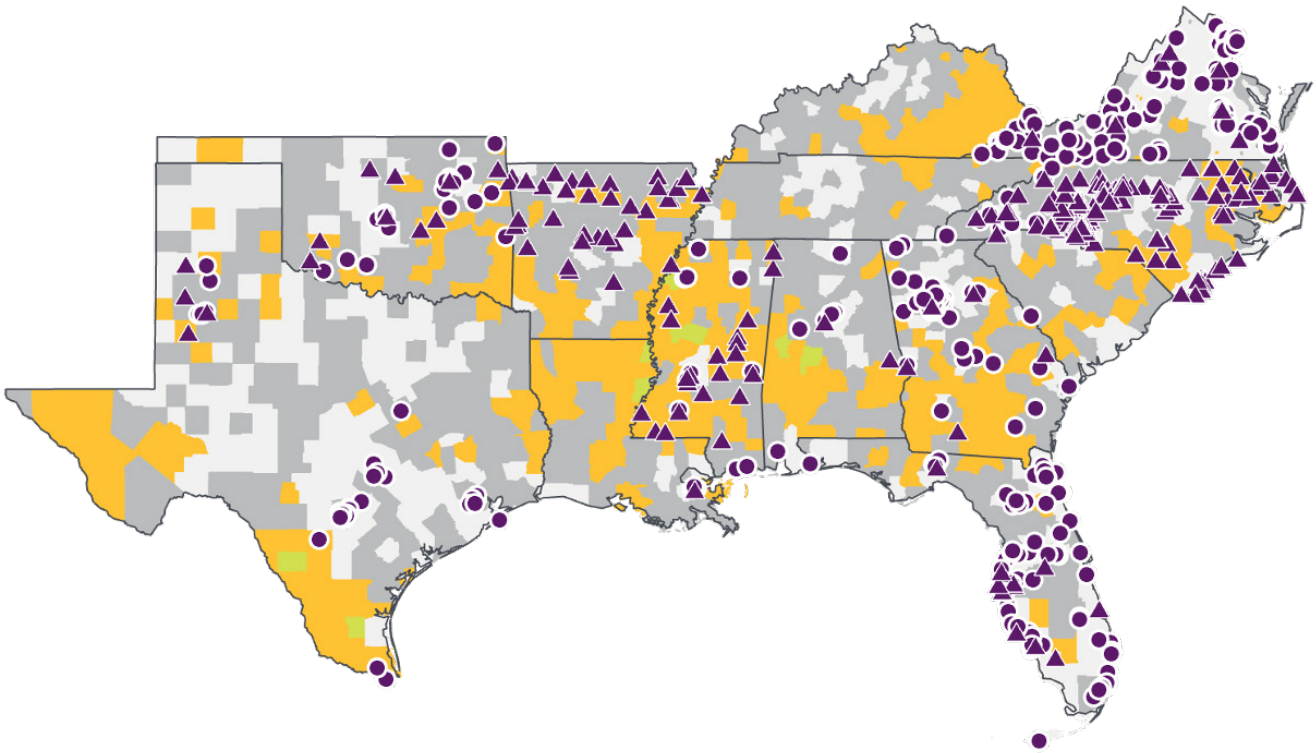
American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- >20%

State	Average % Population Below Poverty by NI Site Locations
Connecticut	N/A[1]
Delaware	N/A
District of Columbia	15.5%
Maine	N/A
Maryland	9.9%
Massachusetts	16.5%
New Hampshire	N/A
New Jersey	11.6%
New York	17.6%
Pennsylvania	15.8%
Rhode Island	14.0%
Vermont	N/A
West Virginia	17.2%
Northeastern Region Average	**14.8%**

[1]N/A = No GusNIP NI projects in the state

Southern Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- >20%

State[1]	Average % Population Below Poverty by NI Site Locations
Alabama	16.0%
Arkansas	17.2%
Florida	13.9%
Georgia	16.0%
Kentucky	N/A[2]
Louisiana	23.0%
Mississippi	23.3%
North Carolina	14.3%
Oklahoma	16.2%
South Carolina	N/A[2]
Tennessee	N/A
Texas	15.8%
Virginia	12.9%
Southern Region Average	**16.9%**

[1]In Y3, there were no active NI projects in Southern territories eligible for SNAP/NAP (The U.S. Virgin Islands and Puerto Rico).
[2]N/A = No GusNIP NI projects in the state

Produce Prescription Projects

PPR Map Legend

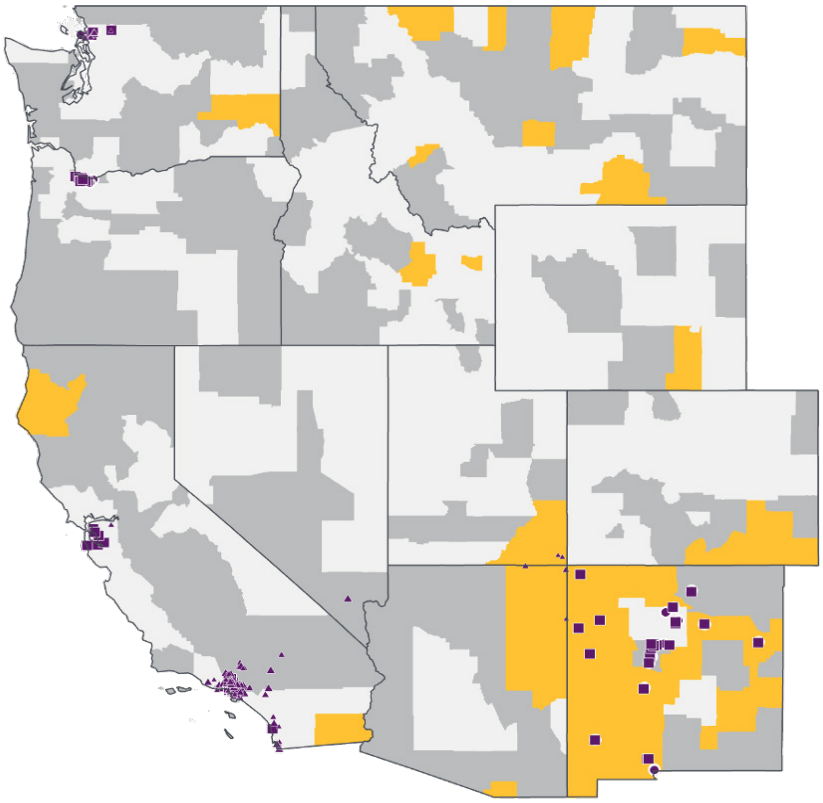
Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations
- ■ Clinic Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

Western Region Site Locations by Poverty Level



Site Location Symbols

- Brick-and-Mortar Site Locations
- Farm Direct Site Locations
- Clinic Site Locations

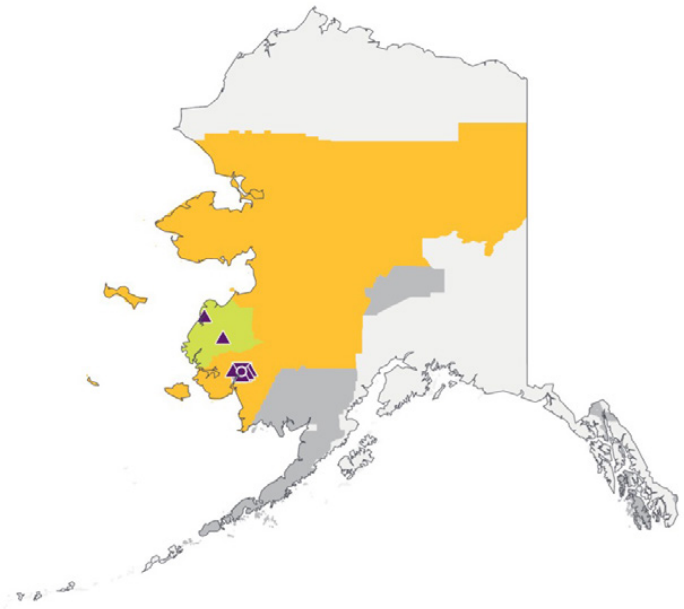
American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

State[1]	Average % Population Below Poverty by PPR Site Locations
Alaska	30.3%
Arizona	16.0%
California	13.5%
Colorado	N/A[2]
Hawaii	10.8%
Idaho	N/A
Montana	N/A
Nevada	13.4%
New Mexico	19.6%
Oregon	12.7%
Utah	22.8%
Washington	10.5%
Wyoming	N/A
Western Region Average	16.6%

[1]In Y3, there were no active PPR projects in Western territories eligible for SNAP/NAP (Guam, American Samoa, the Commonwealth of Northern Mariana Islands, and the Federated States of Micronesia).
[2]N/A = No GusNIP PPR projects in the state.

Alaska[1]



Hawaii[1]

[1] Hawaii and Alaska fall within the Western NIFA region but are shown separately for clarity

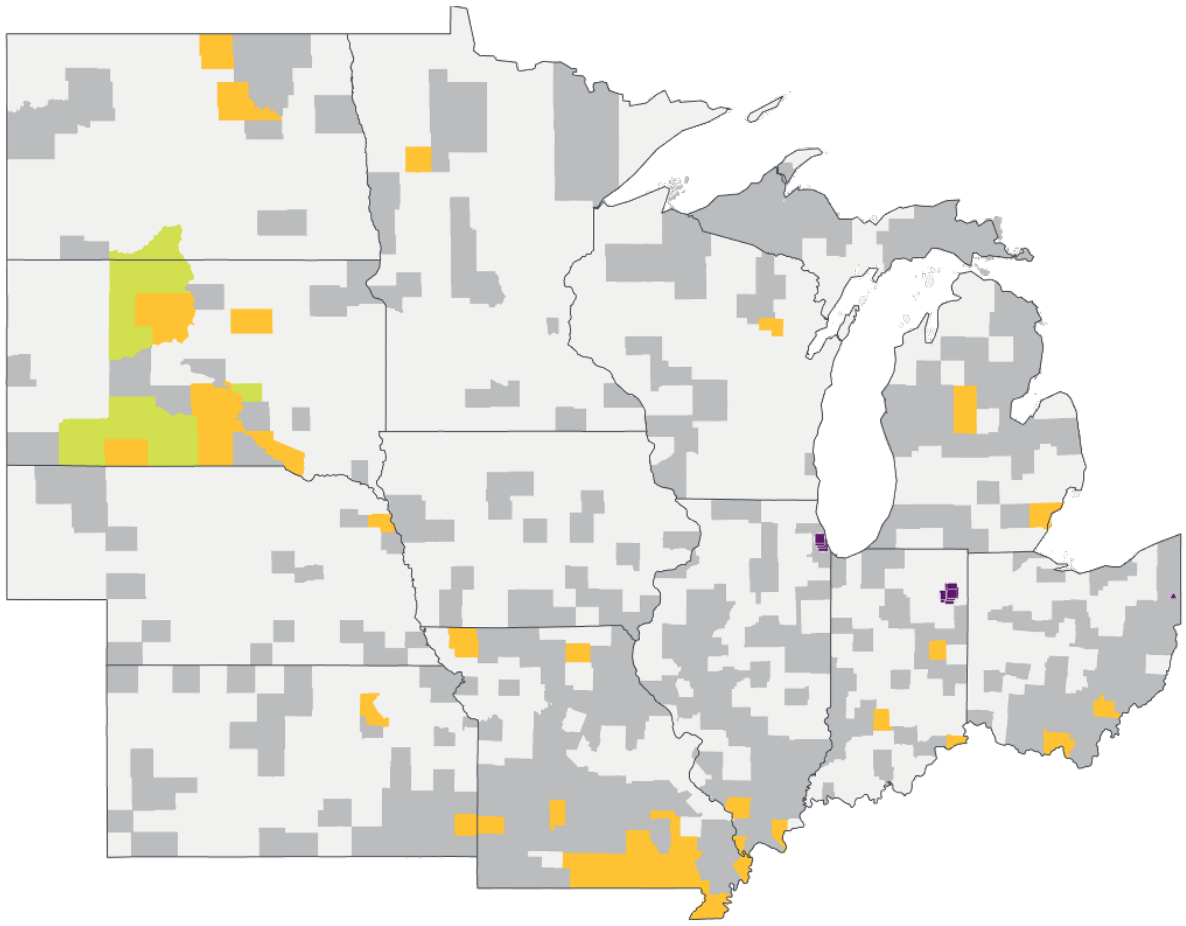
Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations
- ■ Clinic Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

North Central Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations
- ■ Clinic Site Locations

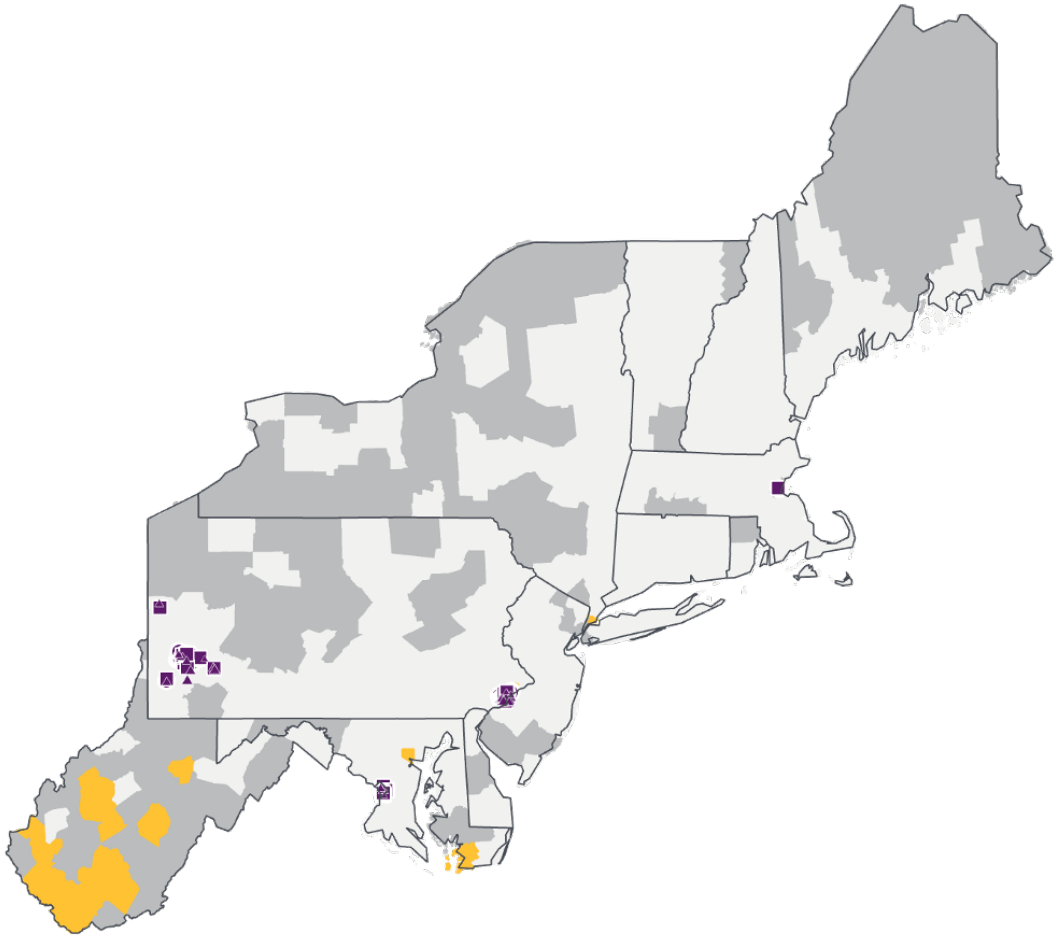
American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

State	Average % Population Below Poverty by PPR Site Locations
Illinois	13.7%
Indiana	12.6%
Iowa	N/A[1]
Kansas	N/A
Michigan	N/A
Minnesota	N/A
Missouri	N/A
Nebraska	N/A
North Dakota	N/A
Ohio	17.6%
South Dakota	N/A
Wisconsin	N/A
North Central Region Average	**14.6%**

[1]N/A = No GusNIP PPR projects in the state

Northeastern Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations
- ■ Clinic Site Locations

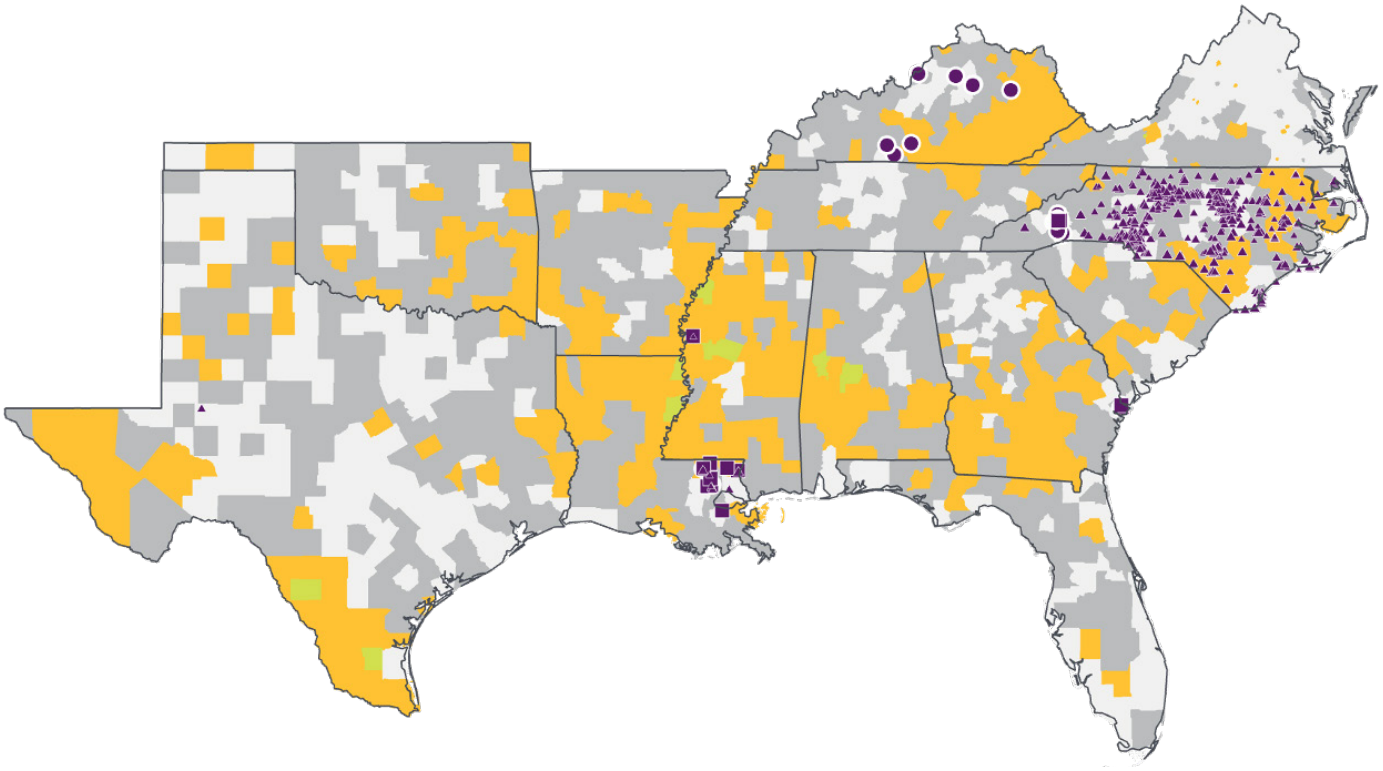
American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

State	Average % Population Below Poverty by PPR Site Locations
Connecticut	N/A[1]
Delaware	N/A
District of Columbia	15.5%
Maine	N/A
Maryland	N/A
Massachusetts	17.4%
New Hampshire	N/A
New Jersey	12.3%
New York	N/A
Pennsylvania	15.8%
Rhode Island	N/A
Vermont	N/A
West Virginia	N/A
Northeastern Region Average	**15.3%**

[1]N/A = No GusNIP PPR projects in the state

Southern Region Site Locations by Poverty Level



Site Location Symbols

- ▲ Brick-and-Mortar Site Locations
- ● Farm Direct Site Locations
- ■ Clinic Site Locations

American Community Survey percent of population whose income in the past 12 months is below poverty level

- 1-11%
- 11.1 - 15%
- 15.1 - 19.9%
- ≥20%

State[1]	Average % Population Below Poverty by PPR Site Locations
Alabama	N/A[2]
Arkansas	N/A
Florida	N/A
Georgia	14.4%
Kentucky	17.5%
Louisiana	20.6%
Mississippi	30.9%
North Carolina	14.5%
Oklahoma	N/A
South Carolina	N/A
Tennessee	N/A
Texas	9.8%
Virginia	N/A
Southern Region Average	**18.0%**

[1]In Y3, there were no active PPR projects in Southern territories eligible for SNAP/NAP (The U.S. Virgin Islands and Puerto Rico).
[2]N/A = No GusNIP PPR projects in the state

Appendix 8. Produce Prescription Results Table

Produce Prescription Site-Level Results Tables

Table B1. Financial Instruments[1] for Incentive Distribution by Site Type for PPR Projects (2021-2022)[2]

Financial Instruments	B&M (n = 1)	FD (n = 15)	Clinics (n = 153)	Total PPR (N = 169)
Token n (%)	0 (0%)	6 (40.0%)	4 (2.6%)	10 (5.9%)
Paper Voucher or Coupon n (%)	0 (0%)	2 (13.3%)	111 (72.5%)	113 (66.9%)
Loyalty Account[3] n (%)	1 (100.0%)	0 (0%)	21 (12.7%)	22 (13.0%)
Discount at Register n (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
CSA Share or Produce Box n (%)	0 (0%)	2 (13.3%)	10 (6.5%)	12 (7.1%)
Other n (%)	0 (0%)	1 (6.7%)	13 (8.5%)	14 (8.3%)

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

[1] Financial instruments are the methods that sites use to distribute incentives.

[2] Sites that did not report on financial instruments 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 financial instruments for incentive redemption so the rows in each column may not add up to the number of sites (n).

[3] Loyalty account includes sites with online loyalty accounts, loyalty cards, and/or ID-based loyalty accounts.

Table B2. Fruits and Vegetables (FVs) Eligible for Incentive Redemption by Site Type for PPR Projects (2021-2022)[1]

Eligible FVs	B&M (n = 614)	FD (n = 105)	Clinics (n = 3)	Total PPR (N = 772)
Fresh FVs Only n (%)	187 (30.5%)	49 (46.7%)	1 (33.3%)	237 (32.8%)
All FVs (fresh, canned, frozen, dried, plants, and/or seeds) n (%)	417 (67.9%)	1 (1.0%)	1 (33.3%)	419 (58.0%)
Only State or Regionally Grown FVs n (%)	1 (0.2%)	55 (52.4%)	1 (33.3%)	57 (7.9%)
Other n (%)	9 (1.5%)	0 (0%)	0 (0%)	9 (1.2%)

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

[1] 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.

Table B3. Annual Incentive Distribution and Redemption by Site Type for PPR Projects (2021-2022)[1]

Incentive Distribution and Redemption	GusNIP PPR (n = 874)	GusCRR PPR (n = 129)	B&M (n = 630)	FD (n = 105)	Clinics (n = 178)	All Sites (N = 913)
Annual Incentives Distributed						
Total	$3,293,354	$298,244	$189,960	$479,358	$2,922,281	$3,591,599
Mean	$3,768	$2,312	$315	$5,100	$18,316	$4,206
Annual Incentives Redeemed						
Total	$1,594,669	$323,248	$1,031,010	$750,969	$135,937	$1,917,917
Mean	$1,825	$2,506	$1,710	$7,989	$865	$2,246
Annual Redemption Rate						
Total[2]	48.42%	108.38%	542.75%	156.66%	4.65%	53.40%
Mean[3]	66.65%	88.79%	38.71%	87.99%	84.48%	71.43%

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

[1] Number of sites (n) in each column header is based on number of sites that have data for this metric, not the total number of sites participating.

[2] 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 fundings sources. Total annual redemption rate is the total annual incentives redeemed divided by the total annual incentives distributed in each column and represented as a percentage. Note that this is a different calculation from mean annual redemption rate.

[3] The mean presented here is the average annual redemption rate for all sites with complete data for annual redemption rate. Annual redemption rate is the annual value of incentives redeemed divided by the annual value of incentives distributed for every site with a non-zero value of annual incentives distributed and represented as a percentage. Note that this is a different calculation from total annual redemption rate. The majority of sites submit redemption data even when it is zero, but some do not submit this data given unique project models so the mean annual redemption rate per site may be slightly positively skewed. Additionally, most PPR sites either issue or redeem incentives and thus a site-level mean of redemption only captures the few sites that do both distribution and redemption.

Table B4. Nutrition Education Activities Offered by Site Type for PPR Projects (2021-2022)[1]

Nutrition Education Activities	B&M (n = 30)	FD (n = 62)	Clinics (n = 107)	Total PPR (N = 199)
1:1 or Small Group Nutrition Education n (%)	5 (16.7%)	11 (17.7%)	98 (91.6%)	114 (57.3%)
Partnering Nutrition Education[2] n (%)	5 (16.7%)	12 (19.4%)	37 (34.6%)	54 (27.1%)
Cooking Demonstrations n (%)	30 (100.0%)	59 (95.2%)	90 (84.1%)	179 (89.9%)
Food Navigation or Tours n (%)	12 (40.0%)	11 (17.7%)	7 (6.5%)	30 (15.1%)
E-interventions n (%)	14 (46.7%)	1 (1.6%)	27 (25.2%)	42 (21.1%)
Other[3] n (%)	2 (6.7%)	1 (1.6%)	8 (7.5%)	11 (5.5%)

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

[1] 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). A total of 699 sites (B&M = 586, FD = 44, Clinics = 69) selected "none" as a response option. Cell percentages include all responses that were not "none."

[2] Other external agencies (e.g., SNAP-Ed, EFNEP, WIC) offer educational programming.

[3] Other responses included items such as: gardening education, children specific programming, nutrition education including physical activity, canning and preserving, etc.

Table B5. Support Services Offered by Site Type for PPR Projects (2021-2022)[1]

Support Services	B&M (n = 164)	FD (n = 44)	Clinics (n = 116)	Total PPR (N = 324)
Resource Referrals n (%)	12 (7.3%)	25 (56.8%)	83 (71.6%)	120 (37.0%)
Produce Delivery and Transportation n (%)	143 (87.2%)	23 (52.3%)	50 (43.1%)	216 (67.7%)
Health Fairs and Other Community Building Activities n (%)	0 (0%)	1 (2.3%)	23 (19.8%)	24 (7.4%)
Voter Registration and Other Civic Engagement n (%)	1 (0.6%)	10 (22.7%)	19 (16.4%)	30 (9.3%)
COVID Testing or Vaccination n (%)	13 (7.9%)	6 (13.6%)	98 (84.5%)	117 (36.1%)
Other[2] n (%)	0 (0%)	5 (11.4%)	7 (6.0%)	12 (3.7%)

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

[1] 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). A total of 574 sites (B&M = 452, FD = 62, Clinics = 60) selected "none" as a response option. Cell percentages include all responses that were not "none."

[2] Other responses included items such as: promotion of other programs, skill building (e.g., computer classes), behavioral health screenings, etc.

Table B6. Marketing Activities Offered by Site Type for PPR Projects (2021-2022)[1]

Marketing Activities	B&M (n = 40)	FD (n = 64)	Clinics (n = 109)	Total PPR (N = 213)
On-site Signage or Announcements n (%)	32 (80.0%)	51 (79.7%)	46 (42.2%)	129 (60.6%)
Direct Promotions Distributed by Direct Mail, Email, Phone n (%)	15 (37.5%)	42 (65.6%)	44 (40.4%)	101 (47.4%)
Public Promotions n (%)	7 (17.5%)	3 (4.7%)	33 (30.3%)	43 (20.2%)
Multi-lingual Promotions n (%)	8 (20.0%)	11 (17.2%)	28 (25.7%)	47 (22.1%)
Directories n (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Online Advertisements n (%)	7 (17.5%)	16 (25.0%)	7 (6.4%)	30 (14.1%)
Other[2] n (%)	1 (2.5%)	1 (1.6%)	36 (33.0%)	38 (17.8%)

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

[1] 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). A total of 685 sites (B&M = 576, FD = 42, Clinics = 67) selected "none" as a response option. Cell percentages include all responses that were not "none."

[2] Other responses included items such as: special events, promotion with partnering agencies (e.g., senior's center, food banks, neighborhood associations), etc.

Table B7. Eligibility Criteria for PPR Program Participation (2021-2022)

Eligibility Criteria	Enrollment Site (N = 181)[1]
Medicaid or Medicare Participant n (%)	123 (68.0%)
SNAP Participant[2] n (%)	30 (16.6%)
Screen Positive for Food Insecurity n (%)	131 (72.4%)
Screen Positive for a Chronic Health Condition (e.g., diabetes)[3] n (%)	151 (83.4%)
Adult n (%)	113 (62.4%)
Child n (%)	35 (19.3%)
Other[4] n (%)	63 (34.8%)

N = total number in sample; n = number in subsample; PPR = produce prescription; SNAP = Supplemental Nutrition Assistance Program

[1] Sites that did not report on eligibility criteria for PPR program participation (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 eligibility so the rows will not add up to the number of PPR sites (n).

[2] Although SNAP participation is not a requirement for PPR projects, some projects ask about SNAP participation as an indicator of low income.

[3] Of the sites with chronic conditions as an eligibility criterion, 96.7% included diabetes, 88.7% included pre-diabetes, 74.0% included hypertension, 72.7% included cardiovascular disease, and 48.7% included obesity.

[4] Other responses included expecting mothers and residents of specific regions.

Produce Prescription Participant-Level Results Table

Table B8. Sociodemographic Characteristics at Baseline Among PPR Y3 **Baseline Only Sample** (N = 4,216) and **PPR Y3 Analytic Sample** (N = 949; 2021-2022)

Sociodemographic Characteristics	Y3 Baseline Only Sample (N = 4,216)[2]	Y3 Analytic Sample (N = 949)[3]
Age (Years)		
n	3,909	917
Mean (SD)	53.07 (14.92)	51.32 (15.26)
Age Group (Years) n (%)		
18 to 24	136 (3.4%)	45 (4.9%)
25 to 34	463 (11.7%)	126 (13.7%)
35 to 44	613 (15.4%)	138 (15.0%)
45 to 64	1,832 (46.1%)	418 (45.6%)
65 and over	926 (23.3%)	190 (20.7%)
Missing	246	32
Gender n (%)		
Female	3,009 (76.9%)	706 (77.9%)
Male	821 (21.0%)	180 (19.9%)
Non-binary/Third Gender	9 (0.2%)	5 (0.6%)
Prefer to Self-describe	24 (0.6%)	4 (0.4%)
Prefer Not to Answer	52 (1.3%)	11 (1.2%)
Missing	301	43
Race n (%)		
American Indian or Alaskan Native	124 (3.2%)	27 (3.0%)
Asian	84 (2.2%)	21 (2.3%)
Black or African American	1,100 (28.4%)	251 (27.8%)
More Than One Race	239 (6.2%)	30 (3.3%)
Native Hawaiian	127 (3.3%)	1 (0.1%)
Other	895 (23.1%)	207 (22.9%)
Other Pacific Islander	179 (4.6%)	121 (13.4%)
White	898 (23.2%)	180 (19.9%)
Don't Know/Not Sure	54 (1.4%)	20 (2.2%)
Prefer Not to Answer	173 (4.5%)	46 (5.1%)
Missing	343	45
Ethnicity n (%)		
Hispanic or Latino/a/x	1,462 (40.2%)	323 (35.1%)
Non-Hispanic or Latino/a/x	2,120 (58.2%)	569 (63.2%)
Prefer Not to Answer	59 (1.6%)	9 (1.0%)
Missing	575	48

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

[1] 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.

[2] Participants with only a baseline survey in Y3 (September 1, 2021-August 31, 2022) and post survey planned for subsequent reporting periods.

[3] Participants with a baseline and post survey, with post survey collected in Y3 (September 1, 2021-August 31, 2022) and baseline survey from Y2 or Y3.

Table B9. Frequency and Percentage of Food Security Status Among PPR Project Participants **(Y3 Analytic (Post) Sample** (N = 949)**)**[1] by Sociodemographic Characteristics (2021-2022)[2,3]

Sociodemographic Characteristics	Food Secure Baseline (n = 312)	Food Secure Post (n = 410)	Food Insecure Baseline (n = 611)	Food Insecure Post (n = 498)
Age (Years)				
n	299	389	597	485
Mean (SD)	52.8 (16.3)	51.5 (16.3)	51.0 (14.7)	51.7 (14.5)
Age Group (Years) n (%)				
18 to 24	9 (20.0%)	20 (44.4%)	36 (80.0%)	25 (55.6%)
25 to 34	50 (43.5%)	65 (59.1%)	65 (56.5%)	45 (40.9%)
35 to 44	42 (31.6%)	59 (44.7%)	91 (68.4%)	73 (55.3%)
45 to 64	114 (27.5%)	146 (36.5%)	301 (72.5%)	254 (63.5%)
65 and over	85 (44.7%)	101 (53.4%)	105 (55.3%)	88 (46.6%)
Missing	12	19	13	13
Gender n (%)				
Female	223 (32.3%)	329 (48.0%)	467 (67.7%)	357 (52.0%)
Male	70 (38.9%)	65 (36.1%)	110 (61.1%)	115 (63.9%)
Non-binary/Third Gender	2 (40.0%)	4 (80.0%)	3 (60.0%)	1 (20.0%)
Prefer to Self-describe	1 (25.0%)	1 (25.0%)	3 (75.0%)	3 (75.0%)
Prefer Not to Answer	5 (45.5%)	7 (63.6%)	6 (54.5%)	4 (36.4%)
Missing	11	4	22	18
Race n (%)				
American Indian or Alaskan Native	1 (9.1%)	1 (12.5%)	10 (90.9%)	7 (87.5%)
Asian	8 (38.1%)	11 (52.4%)	13 (61.9%)	10 (47.6%)
Black or African American	111 (44.2%)	136 (54.2%)	140 (55.8%)	115 (45.8%)
More Than One Race	9 (30.0%)	13 (44.8%)	21 (70.0%)	16 (55.2%)
Native Hawaiian	1 (100.0%)	1 (100.0%)	0 (0%)	0 (0%)
Other	61 (29.5%)	96 (46.4%)	146 (70.5%)	111 (53.6%)
Other Pacific Islander	21 (17.4%)	31 (25.6%)	100 (82.6%)	90 (74.4%)
White	66 (36.7%)	85 (47.2%)	114 (63.3%)	95 (52.8%)
Don't Know/Not Sure	9 (45.0%)	10 (50.0%)	11 (55.0%)	10 (50.0%)
Prefer Not to Answer	13 (28.3%)	23 (50.0%)	33 (71.7%)	23 (50.0%)
Missing	12	3	23	21

Sociodemographic Characteristics	Food Secure Baseline (n = 312)	Food Secure Post (n = 410)	Food Insecure Baseline (n = 611)	Food Insecure Post (n = 498)
Ethnicity n (%)				
Hispanic or Latino/a/x	102 (31.7%)	151 (47.0%)	220 (68.3%)	170 (53.0%)
Non-Hispanic or Latino/a/x	193 (34.8%)	249 (45.2%)	361 (65.2%)	302 (54.8%)
Prefer Not to Answer	3 (33.3%)	4 (44.4%)	6 (66.7%)	5 (55.6%)
Missing	14	6	24	21
Region[4] n (%)				
Northeast	74 (37.3%)	115 (58.1%)	125 (62.8%)	83 (41.9%)
North Central	56 (37.6%)	68 (45.6%)	93 (62.4%)	81 (54.4%)
Southern	65 (43.6%)	58 (44.3%)	84 (56.4%)	73 (55.7%)
Western	116 (27.5%)	168 (39.4%)	306 (72.5%)	258 (60.6%)
Missing	1	1	3	3
Total n (%)	312 (33.8%)	410 (45.1%)	611 (66.2%)	498 (54.9%)

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

[1] Participants with a baseline and post survey, with post survey collected in Y3 (September 1, 2021-August 31, 2022) and baseline survey from Y2 or Y3.

[2] Missing values for age group, gender, ethnicity, and race are not included in percentage calculations.

[3] 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.

[4] Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

Table B10. Daily FV Cup Equivalents Among PPR Participants **(Y3 Analytic (Post) Sample** (N = 845 - 855)**)**[1] Across Sociodemographic Characteristics (2021-2022)[2]

Sociodemographic Characteristics	Fruits and Vegetables[3] Baseline (n = 836)	Fruits and Vegetables[3] Post (n = 845)	Fruits Only Baseline (n = 851)	Fruits only Post (n = 855)	Vegetables Only[3] Baseline (n = 845)	Vegetables Only[3] Post (n = 849)
Age Group (Years) Mean (SD)						
18 to 24	2.48 (0.89)	2.63 (0.88)	1.00 (0.53)	1.24 (0.74)	1.47 (0.56)	1.41 (0.36)
25 to 34	2.42 (0.68)	2.54 (0.77)	1.05 (0.49)	1.13 (0.60)	1.43 (0.36)	1.44 (0.36)
35 to 44	2.58 (0.87)	2.67 (0.88)	1.03 (0.49)	1.08 (0.53)	1.59 (0.54)	1.63 (0.53)
45 to 64	2.48 (0.89)	2.60 (0.82)	0.91 (0.48)	0.99 (0.51)	1.57 (0.56)	1.60 (0.47)
65 and over	2.38 (0.78)	2.5 (0.68)	0.86 (0.37)	0.94 (0.44)	1.49 (0.53)	1.56 (0.4)
Gender Mean (SD)						
Female	2.42 (0.77)	2.52 (0.73)	0.94 (0.45)	1.00 (0.48)	1.48 (0.47)	1.52 (0.42)
Male	2.68 (1.05)	2.85 (1.01)	0.95 (0.53)	1.11 (0.71)	1.71 (0.69)	1.73 (0.54)
Race Mean (SD)						
American Indian or Alaskan Native	2.5 (0.84)	2.55 (0.7)	1.11 (0.58)	1.09 (0.53)	1.41 (0.42)	1.49 (0.3)
Asian	2.48 (0.82)	2.39 (0.9)	0.89 (0.37)	0.90 (0.70)	1.54 (0.48)	1.50 (0.39)
Black or African American	2.44 (0.71)	2.64 (0.85)	0.99 (0.47)	1.12 (0.57)	1.44 (0.42)	1.51 (0.45)
More Than One Race	2.55 (0.92)	2.59 (1.03)	0.91 (0.38)	0.92 (0.43)	1.61 (0.60)	1.59 (0.64)
Native Hawaiian[4]	1.86	1.88	0.63	0.63	1.21	1.19
Other	2.57 (0.78)	2.61 (0.63)	0.94 (0.43)	1.01 (0.41)	1.62 (0.52)	1.61 (0.38)
Other Pacific Islander	2.27 (1.12)	2.37 (0.76)	0.81 (0.48)	0.87 (0.51)	1.48 (0.74)	1.54 (0.49)
White	2.56 (0.81)	2.65 (0.83)	0.96 (0.43)	1.03 (0.52)	1.61 (0.51)	1.62 (0.46)
Don't Know/Not Sure	2.37 (0.76)	2.56 (0.86)	0.87 (0.34)	1.08 (0.70)	1.51 (0.56)	1.53 (0.40)
Prefer Not to Answer	2.39 (0.87)	2.59 (0.96)	1.05 (0.73)	1.08 (0.72)	1.49 (0.48)	1.56 (0.55)
Ethnicity Mean (SD)						
Hispanic or Latino/a/x	2.52 (0.77)	2.55 (0.72)	0.96 (0.47)	1.00 (0.48)	1.57 (0.49)	1.57 (0.42)
Non-Hispanic or Latino/a/x	2.44 (0.86)	2.59 (0.82)	0.94 (0.46)	1.03 (0.55)	1.5 (0.54)	1.56 (0.46)
Prefer Not to Answer	2.88 (1.49)	3.15 (1.51)	1.20 (0.91)	1.37 (0.93)	1.78 (0.91)	1.91 (0.87)

Sociodemographic Characteristics	Fruits and Vegetables[3] Baseline (n = 836)	Fruits and Vegetables[3] Post (n = 845)	Fruits Only Baseline (n = 851)	Fruits only Post (n = 855)	Vegetables Only[3] Baseline (n = 845)	Vegetables Only[3] Post (n = 849)
Region[5] Mean (SD)						
Northeast	2.39 (0.64)	2.48 (0.77)	0.95 (0.41)	1.02 (0.49)	1.44 (0.38)	1.46 (0.43)
North Central	2.46 (0.83)	2.59 (0.82)	0.95 (0.49)	1.05 (0.58)	1.51 (0.47)	1.54 (0.42)
Southern	2.71 (0.83)	2.79 (0.87)	1.11 (0.52)	1.26 (0.68)	1.61 (0.56)	1.55 (0.40)
Western	2.45 (0.92)	2.57 (0.77)	0.89 (0.47)	0.96 (0.47)	1.56 (0.60)	1.62 (0.47)
Total Mean (SD)	2.47 (0.84)	2.58 (0.80)	0.95 (0.47)	1.03 (0.53)	1.53 (0.53)	1.56 (0.45)

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

[1] Participants with a baseline and post survey, with post survey collected in Y3 (September 1, 2021-August 31, 2022) and baseline survey from Y2 or Y3.

[2] 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.

[3] Vegetables calculated with legumes and without french fries.

[4] No Standard deviation for the Native Hawaiian race category since this represents one respondent.

[5] Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture

Table B11. Daily FV Frequency Among Non-Binary / Third Gender Identifying and Preferred to Self-Describe PPR Participants Among **Y3 Analytic (Post) Sample** (N = 9; 2021-2022)

Response n (%)	Fruit juice[1]	Fruit	Salad	Fried potatoes	Other potatoes	Beans	Vegetables[2]	Salsa	Pizza	Tomato sauce
Never	2 (22.2%)	0 (0%)	0 (0%)	1 (11.1%)	0 (0%)	1 (11.1%)	0 (0%)	1 (11.1%)	0 (0%)	1 (11.1%)
1 time last month	0 (0%)	0 (0%)	0 (0%)	2 (22.2%)	2 (22.2%)	2 (22.2%)	0 (0%)	5 (55.6%)	5 (55.6%)	4 (44.4%)
2-3 times last month	4 (44.4%)	4 (44.4%)	2 (22.2%)	2 (22.2%)	3 (33.3%)	0 (0%)	2 (22.2%)	0 (0%)	3 (33.3%)	2 (22.2%)
1 time per week	0 (0%)	0 (0%)	3 (33.3%)	2 (22.2%)	1 (11.1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (11.1%)
2 times per week	0 (0%)	1 (11.1%)	1 (11.1%)	1 (11.1%)	2 (22.2%)	2 (22.2%)	0 (0%)	2 (22.2%)	1 (11.1%)	1 (11.1%)
3-4 times per week	2 (22.2%)	3 (33.3%)	1 (11.1%)	1 (11.1%)	1 (11.1%)	3 (33.3%)	3 (33.3%)	0 (0%)	0 (0%)	0 (0%)
5-6 times per week	0 (0%)	0 (0%)	1 (11.1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
1 time per day	1 (11.1%)	0 (0%)	1 (11.1%)	0 (0%)	0 (0%)	2 (22.2%)	2 (22.2%)	0 (0%)	0 (0%)	0 (0%)
2 or more times per day	0 (0%)	1 (11.1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (11.1%)	1 (11.1%)	0 (0%)	0 (0%)
2-3 times per day	0 (0%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6 or more times per day	0 (0%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prefer not to respond	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

N = total number in sample; n = number in subsample; FV = fruit and vegetable; PPR = produce prescription

[1] 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"; "6 or more times per day").

[2] Vegetables calculated with legumes and without french fries.

Table B12. Perceived Health Status of PPR Participants among **Y3 Baseline Only Sample** (N = 4,216) and **PPR Y3 Analytic Sample** (N = 949; 2021-2022)

Perceived Health n (%)	Y3 Baseline Only[1] Sample (N = 4,216)	Y3 Analytic[2] Sample Baseline (N = 949)	Y3 Analytic[2] Sample Post (N = 949)
Poor	511 (12.6%)	86 (9.5%)	62 (6.6%)
Fair	1,898 (46.8%)	361 (39.8%)	364 (38.7%)
Good	1,239 (30.6%)	342 (37.7%)	376 (40.0%)
Very Good	270 (6.7%)	78 (8.6%)	89 (9.5%)
Excellent	91 (2.2%)	33 (3.6%)	38 (4.0%)
Don't Know/ Prefer Not to Answer	43 (1.1%)	6 (0.7%)	11 (1.2%)
Missing[3]	164	43	9

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

[1] Participants with only a baseline survey in Y3 (September 1, 2021-August 31, 2022) and post-survey planned for subsequent reporting periods.

[2] Participants with a baseline and post-survey, with post-survey collected in Y3 (September 1, 2021-August 31, 2022) and baseline survey from Y2 or Y3.

[3] Missing values for perceived health status are not included in percentage calculations.

Table B13. Program Satisfaction Among PPR Participants at Post among **PPR Y3 Analytic Sample** (N = 949; 2021-2022)

Program Satisfaction n (%)	Y3 Analytic (Post) Sample (N = 949)[1]
Very Negative	5 (0.6%)
Negative	5 (0.6%)
Neutral	39 (4.8%)
Positive	264 (32.4%)
Very Positive	491 (60.3%)
Don't Know/ Prefer Not to Answer	10 (1.2%)
Missing[2]	135

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

[1] Participants with a baseline and post survey, with post survey collected in Y3 (September 1, 2021-August 31, 2022) and baseline survey from Y2 or Y3.

[2] Missing values for program satisfaction are not included in percentage calculations.

Table B14. COVID-19 Impacts Among PPR Project Participants **(Y3 Baseline Only Sample** (N = 4,216) and **PPR Y3 Analytic Sample** (N = 949; 2021-2022)**)**

COVID-19 Impacts	Y3 Baseline Only[1] Sample (N = 4,216)	Y3 Analytic[2] Baseline (N = 949)	Y3 Analytic[2] Post (N = 949)
COVID-19 Made it Hard to Make Ends Meet n (%)			
Strongly Disagree	231 (6.1%)	46 (5.7%)	32 (4.8%)
Disagree	540 (14.2%)	110 (13.7%)	130 (19.5%)
Neither Disagree nor Agree	621 (16.3%)	165 (20.5%)	129 (19.4%)
Agree	1,356 (35.6%)	294 (36.6%)	218 (32.7%)
Strongly Agree	958 (25.2%)	170 (21.1%)	136 (20.4%)
Don't Know/ Prefer Not to Answer	102 (2.7%)	19 (2.4%)	21 (3.2%)
Missing[3]	408	145	283
COVID-19 Made it Hard to Purchase FVs n (%)			
Strongly Disagree	180 (6.1%)	28 (4.2%)	30 (4.5%)
Disagree	625 (21.1%)	133 (20.0%)	180 (27.0%)
Neither Disagree nor Agree	551 (18.6%)	177 (26.6%)	135 (20.3%)
Agree	1,055 (35.7%)	229 (34.4%)	222 (33.3%)
Strongly Agree	476 (16.1%)	90 (13.5%)	77 (11.6%)
Don't Know/ Prefer Not to Answer	69 (2.3%)	9 (1.4%)	22 (3.3%)
Missing[3]	1,260	283	283
COVID-19 Resulted in Utilization of Emergency Food Outlets n (%)			
No	1,621 (42.6%)	319 (39.7%)	293 (44.0%)
Yes	2,110 (55.4%)	472 (58.7%)	347 (52.1%)
Don't Know/ Prefer Not to Answer	78 (2.0%)	13 (1.6%)	26 (3.9%)
Missing[3]	407	145	283

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

[1] Participants with only a baseline survey in Y3 (September 1, 2021-August 31, 2022) and post-survey planned for subsequent reporting periods.

[2] Participants with a baseline and post-survey, with post-survey collected in Y3 (September 1, 2021-August 31, 2022) and baseline survey from Y2 or Y3.

[3] Missing values for COVID-19 impacts are not included in percentage calculations.

Table B15. Frequency and Percentage of Food Security Status among PPR Project Participants **(Y3 Baseline Only Sample** (N = 3,981)**)**[1] by Sociodemographic Characteristics (2021-2022)[2]

Sociodemographic Characteristics	Food Secure (n = 1,279)	Food Insecure (n = 2,702)
Age (Years)		
n	1,210	2,589
Mean (SD)	54.24 (16.01)	53.22 (14.06)
Age Group (Years) n (%)		
18 to 24	38 (29.2%)	92 (70.8%)
25 to 34	159 (39.4%)	245 (60.6%)
35 to 44	173 (29.4%)	415 (70.6%)
45 to 64	500 (27.5%)	1,316 (72.5%)
65 and over	356 (38.7%)	565 (61.3%)
Missing	53	69
Gender n (%)		
Female	984 (32.5%)	2,048 (67.5%)
Male	264 (31.0%)	587 (69.0%)
Non-binary/Third Gender	2 (22.2%)	7 (77.8%)
Prefer to Self-describe	9 (37.5%)	15 (62.5%)
Prefer Not to Answer	18 (35.3%)	33 (64.7%)
Missing	3	12
Race n (%)		
American Indian or Alaskan Native	10 (15.6%)	54 (84.4%)
Asian	28 (34.1%)	54 (65.9%)
Black or African American	442 (40.3%)	656 (59.7%)
More Than One Race	75 (32.2%)	158 (67.8%)
Native Hawaiian	44 (37.0%)	75 (63.0%)
Other	238 (26.6%)	656 (73.4%)
Other Pacific Islander	40 (22.3%)	139 (77.7%)
White	269 (30.0%)	628 (70.0%)
Don't Know/Not Sure	19 (35.2%)	35 (64.8%)
Prefer Not to Answer	66 (38.6%)	105 (61.4%)
Missing	48	142
Ethnicity n (%)		
Hispanic or Latino/a/x	421 (28.9%)	1,037 (71.1%)
Non-Hispanic or Latino/a/x	711 (34.6%)	1,343 (65.4%)
Prefer Not to Answer	21 (35.6%)	38 (64.4%)
Missing	126	284

Sociodemographic Characteristics	Food Secure (n = 1,279)	Food Insecure (n = 2,702)
Region[3] n (%)		
Northeast	112 (37.2%)	189 (62.8%)
North Central	484 (34.4%)	924 (65.6%)
Southern	158 (38.7%)	250 (61.3%)
Western	510 (28.0%)	1,310 (72.0%)
Missing	15	29
Total n (%)	**1,279 (32.1%)**	**2,702 (67.9%)**

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

[1] Participants with only a baseline survey in Y3 (September 1, 2021-August 31, 2022) and post-survey planned for subsequent reporting periods. Overall, there was a sample of 4,216 surveys with baseline only and 3,981 of these had complete data for food security.

[2] 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.

[3] Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

Table B16. Daily FV Cup Equivalents Among PPR Participants **(Y3 Baseline Only Sample** (N = 3,558 - 3,625)**)**[1] Across Sociodemographic Characteristics (2021-2022)[2]

Sociodemographic Characteristics	Fruits and Vegetables (n = 3,558)	Fruits Only (n = 3,625)	Vegetables Only (n = 3,588)
Age Group (Years) Mean (SD)			
18 to 24	2.40 (0.86)	1.01 (0.53)	1.40 (0.53)
25 to 34	2.45 (0.76)	1.09 (0.61)	1.39 (0.35)
35 to 44	2.52 (0.90)	1.02 (0.58)	1.54 (0.53)
45 to 64	2.45 (0.84)	0.91 (0.48)	1.53 (0.51)
65 and over	2.32 (0.67)	0.86 (0.39)	1.44 (0.41)
Gender Mean (SD)			
Female	2.35 (0.74)	0.93 (0.48)	1.43 (0.43)
Male	2.68 (0.97)	0.95 (0.57)	1.72 (0.59)
Race Mean (SD)			
American Indian or Alaskan Native	2.55 (0.82)	1.08 (0.54)	1.5 (0.51)
Asian	2.5 (0.91)	0.91 (0.47)	1.57 (0.52)
Black or African American	2.42 (0.81)	1 (0.57)	1.44 (0.43)
More Than One Race	2.27 (0.71)	0.86 (0.4)	1.4 (0.45)
Native Hawaiian	2.11 (0.49)	0.75 (0.28)	1.32 (0.33)
Other	2.53 (0.75)	0.92 (0.43)	1.6 (0.47)
Other Pacific Islander	2.31 (1.13)	0.82 (0.49)	1.48 (0.77)
White	2.39 (0.79)	0.91 (0.48)	1.48 (0.45)
Don't Know/Not Sure	2.21 (0.65)	0.81 (0.31)	1.41 (0.45)
Prefer Not to Answer	2.52 (0.9)	1.06 (0.61)	1.52 (0.5)

Sociodemographic Characteristics	Fruits and Vegetables (n = 3,558)	Fruits Only (n = 3,625)	Vegetables Only (n = 3,588)
Ethnicity Mean (SD)			
Hispanic or Latino/a/x	2.50 (0.78)	0.93 (0.46)	1.58 (0.48)
Non-Hispanic or Latino/a/x	2.42 (0.84)	0.96 (0.54)	1.47 (0.48)
Prefer Not to Answer	2.52 (1.11)	1.04 (0.58)	1.52 (0.68)
Region[3] Mean (SD)			
Northeast	2.39 (0.71)	0.95 (0.46)	1.44 (0.40)
North Central	2.39 (0.81)	0.95 (0.54)	1.46 (0.45)
Southern	2.66 (0.93)	1.17 (0.67)	1.53 (0.50)
Western	2.41 (0.80)	0.88 (0.42)	1.52 (0.51)
Total Mean (SD)	**2.42 (0.81)**	**0.94 (0.50)**	**1.49 (0.48)**

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

[1] Participants with only a baseline survey in Y3 (September 1, 2021-August 31, 2022) and post-survey planned for subsequent reporting periods.

[2] 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.

[3] Regions defined by: United States Department of Agriculture, National Institute of Food and Agriculture.

Table B17. Daily FV Frequency Among Non-Binary / Third Gender Identifying and Preferred to Self-Describe PPR Participants Among (**Y3 Baseline Only Sample** (N = 33); 2021-2022)[1]

Response n (%)	Fruit juice	Fruit	Salad	Fried potatoes	Other potatoes	Beans	Vegetables	Salsa	Pizza	Tomato sauce
Never	7 (21.2%)	0 (0%)	2 (6.1%)	4 (12.1%)	4 (12.1%)	2 (6.1%)	1 (3.0%)	8 (24.2%)	5 (15.2%)	4 (12.1%)
1 time last month	4 (12.1%)	0 (0%)	1 (3.0%)	1 (3.0%)	3 (9.1%)	3 (9.1%)	0 (0%)	4 (12.1%)	9 (27.3%)	6 (18.2%)
2-3 times last month	5 (15.2%)	3 (9.1%)	2 (6.1%)	12 (36.4%)	9 (27.3%)	8 (24.2%)	4 (12.1%)	8 (24.2%)	9 (27.3%)	7 (21.2%)
1 time per week	3 (9.1%)	2 (6.1%)	4 (12.1%)	3 (9.1%)	9 (27.3%)	5 (15.2%)	0 (0%)	1 (3.0%)	1 (3.0%)	6 (18.2%)
2 times per week	3 (9.1%)	5 (15.2%)	5 (15.2%)	4 (12.1%)	4 (12.1%)	6 (18.2%)	6 (18.2%)	4 (12.1%)	3 (9.1%)	5 (15.2%)
3-4 times per week	5 (15.2%)	10 (30.3%)	11 (33.3%)	6 (18.2%)	2 (6.1%)	7 (21.2%)	7 (21.2%)	4 (12.1%)	2 (6.1%)	1 (3.0%)
5-6 times per week	1 (3.0%)	3 (9.1%)	3 (9.1%)	1 (3.0%)	0 (0%)	1 (3.0%)	4 (12.1%)	1 (3.0%)	2 (6.1%)	2 (6.1%)
1 time per day	1 (3.0%)	3 (9.1%)	3 (9.1%)	0 (0%)	0 (0%)	0 (0%)	2 (6.1%)	2 (6.1%)	0 (0%)	1 (3.0%)
2 or more times per day	0 (0%)	6 (18.2%)	2 (6.1%)	2 (6.1%)	2 (6.1%)	1 (3.0%)	8 (24.2%)	1 (3.0%)	1 (3.0%)	1 (3.0%)
2-3 times per day	3 (9.1%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6 or more times per day	1 (3.0%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prefer not to respond	0 (0%)	1 (3.0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (3.0%)	0 (0%)	1 (3.0%)	0 (0%)

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

[1] Participants with only a baseline survey in Y3 (September 1, 2021-August 31, 2022) and post-survey planned for subsequent reporting period.

Appendix 9. Y3 R&E Accomplishments

As a result of R&E efforts, GusNIP and GusCRR grantees collected evaluation data from participants and sites, thereby contributing to a robust national dataset. The preceding report provides detailed site-level and participant-level findings. This appendix highlights key R&E accomplishments and activities achieved in Y3. R&E accomplishments during Y3 include:

- Developed and disseminated the **Year 2: September 1, 2020 to August 31, 2021 GusNIP NTAE Impact Findings Report** detailing activities and accomplishments of the GusNIP NTAE from its second year as well as highlighting the national impact of GusNIP projects in Y2.
- Developed and disseminated individualized reports for all active 2020 GusNIP grantees summarizing Y2 site- and participant-level data.
- Continued to promote and refine core minimum datasets for NI and PPR projects. Based on grantee needs and requests, the core participant-level survey was made available in additional languages. The survey is now available in English, Spanish, Somali, Arabic, Korean, Russian, Chinese Traditional, French, Vietnamese and Chinese Simplified.
- Refined protocols and processes for COVID Relief and Response (GusCRR) and American Rescue Plan Act (ARPA) grantees to track and report GusCRR funding.
- Provided new and existing grantees with tailored services, training opportunities, and numerous resources to help evaluate their project(s). New resources created during Y3 include: **Portal Pro Tips, Protocol for Collecting Health Data in a Community Setting**, and expanded **Optional Modules for Participant-Level Surveys.**
- Continued to implement and refine the GusNIP NTAE's Advisor Model which assigns three advisors to each grantee. These include a Program Advisor (PA), Reporting Advisor (RA), and Survey Advisor (SA) who provide technical assistance, general reporting and evaluation, site-level reporting, and participant-level data collection. Advisors provide 1:1 tailored support to grantees upon onboarding and throughout their grant lifecycle.
- Developed and implemented a formal PA training plan. This training plan was used during Y3 to onboard five new consultant PAs. This approach will be replicated as new PAs are onboarded in the future. Alongside this training plan, several internal resources and processes were developed to guide PA's work with grantees.
- Developed a model to onboard Y4 PPR grantees in small cohorts (4-6 grantees) organized by USDA NIFA regions. The cohort-based model was designed to enhance peer-to-peer engagement among grantees and to streamline processes for PAs, RAs, and SAs.
- Launched the External Evaluators Community of Practice. Meetings were held every other month to foster bi-directional communication among grantees, their evaluators and the GusNIP NTAE R&E team.
- Developed, launched, and maintained the **Searchable Resource Library** on the Nutrition Incentive Hub website. The library offers one-stop access to more than 200 resources relevant to NI and PPR projects. Resources include publicly available grey literature published by USDA NIFA funded grantees between 2015–2022. A centralized database allows researchers and practitioners to easily search for and access timely/historical information.
- Developed, launched, and maintained **Discussion Groups** within the secure portal. Current topics include: GusNIP application support, brick-and-mortar, farm direct, incentive technology, program administration, marketing and communications, and more.
- Developed and maintained a master contact list of GusNIP NTAE partners, grantees, sites, clinics, and external evaluators that can be used by the GusNIP NTAE to gather information and/or share key communications.
- Awarded 20 reimbursement grants to GusNIP/GusCRR grantees to provide participant stipends. The reimbursement grants were a direct response to challenges voiced by grantees regarding their lack of capacity to meet sample size requirements without dedicated funding for participant stipends.
- Awarded nine GusNIP PPR Health care Costs Small Grants to support grantees in extracting cost and utilization data for PPR participants and linking cost and utilization data with clinical and participant-level survey data.

- Developed data sharing agreements and associated processes for use between the GusNIP NTAE and TA&I partners as well as the GusNIP NTAE and grantees. All agreements were reviewed and approved by the GusNIP NTAE's legal team.
- Secured additional funding to conduct robust sub-studies about the impact of PPR and NI projects on participants. These sub-studies will augment the GusNIP NTAE's national evaluation and help further enrich the PPR and NI fields. Specifically:
    - A PPR sub-study funded by the American Diabetes Association that will yield results using a controlled study design and will include health care outcomes;
    - An NI sub-study funded through the University of Illinois Chicago and Bloomberg Philanthropies that will yield results based on a matched-control study design using pre-post 24-hour dietary recall data.
- Collaborated with agricultural economists at Colorado State University to develop an NI-specific economic impact calculator tailored to state groupings. The calculator will be available on the **Nutrition Incentive Hub website** with an anticipated release date of spring 2023.
- Continued partnership with the Data Management and Analysis Center (DMAC) at Cincinnati Children's Hospital Medical Center and Dr. Ken Resnicow at the University of Michigan on a variety of study design and data analysis topics, including regression models and covariate selection, strengthening study design methodologies to determine impact, and prioritizing key research gaps to address. In addition, the R&E team collaborated with DMAC on sample size calculations and statistical analyses for this report, annual individual grantee impact reports, and peer-reviewed manuscripts.
- Conducted case studies (ongoing) that augment evaluation and address discrete knowledge gaps. Y3 case studies include:
    - A case study examining strategies to support diversity, equity and inclusion in the shared measures. Specifically, this study explores approaches for collecting GusNIP NI and PPR survey data among racial and ethnic minority populations as well as strategies for improving food and nutrition assessment in these groups;
    - A case study establishing culturally appropriate fruits and vegetables for use in the Dietary Screener Questionnaire;
    - A case study analyzing Capacity Building and Innovation Fund (CBIF) submissions. Specifically, this case study includes a systematic evaluation of CBIF applications to (1) identify the funding needs/requests of applicant organizations and (2) strengthen the funding mechanism to best address the needs of CBIF grant applicants.
- Published 10 peer-reviewed publications (with many more in development) on a range of topics related to NI and PPR projects.
- Published five issue briefs covering HIPAA technology and compliance for PPR projects.
- Presented at more than 40 conferences and convenings to address a wide variety of topics, ranging from descriptions of GusNIP projects, structure and findings, to deeper dives into specific topics for grantees, practitioners and the broader scientific community.
- Provided R&E-specific technical assistance and consultation to prospective GusNIP grantees in preparation for their submission to the 2022 NI and PPR GusNIP Requests for Applications.
- Continued collaboration with TA&I core partners to maintain and refine tracking and evaluation feedback loops for TA requests and response (e.g., quarterly reports) and outcome assessment of TA delivered projects (e.g., post-webinar surveys).

Peer-Reviewed Publications During Y3

Byker Shanks C, Izumi B, Parks CA, Yaroch AL. Measurement of fruit and vegetable intake incorporating a diversity, equity, and inclusion lens. Comment on Di Noia, J.; Gellermann, W. Use of the spectroscopy-based Veggie Meter® to objectively assess fruit and vegetable intake in low-income adults. Nutrients 2021, 13, 2270. *Nutrients*. 2022;14(4):809. **doi:10.3390/nu14040809**

Byker Shanks C, Parks CA, Izumi B, Andress L, Yaroch AL. The need to incorporate diversity, equity, and inclusion: Reflections from a national initiative measuring fruit and vegetable intake. *J Acad Nutr Diet*. 2022;122(7):1241-1245. **doi:10.1016/j.jand.2022.01.011**

Leng KH, Yaroch AL, Nugent NB, Stotz SA, Krieger J. How does the Gus Schumacher Nutrition Incentive Program work? A theory of change. *Nutrients*. 2022;14(10). **doi:10.3390/nu14102018**

Nugent NB, Byker Shanks C, Seligman HK, et al. Accelerating evaluation of financial incentives for fruits and vegetables: A case for shared measures. *Int J Environ Res Public Health*. 2021;18(22). **doi:10.3390/ijerph182212140**

Nugent NB, Ridberg R, Fricke H, et al. Food sovereignty, health, and produce prescription programs: A case study in two rural tribal communities. *J Agric Food Syst Community Dev*. 2022:1-20. **doi:10.5304/jafscd.2022.113.014**

Parks CA, Mitchell E, Byker Shanks C, Nugent NB, Fricke H, Yaroch AL. Descriptive characteristics of nutrition incentive projects across the U.S.: A comparison between farm direct and brick and mortar settings. *Inq J Med Care Organ Provis Financ*. 2021;58. **doi:10.1177/00469580211064131**

Ridberg RA, Yaroch AL, Nugent NB, Byker Shanks C, Seligman H. A case for using electronic health record data in the evaluation of produce prescription programs. *J Prim Care Community Health*. 2022;13. **doi:10.1177/21501319221101849**

Stotz SA, Fricke H, Perra C, Byker Shanks C, Yaroch AL. Successful community nutrition incentive program data collection during the COVID-19 pandemic: A case study. *Curr Dev Nutr*. 2022;6(3). **doi:10.1093/cdn/nzac025**

Stotz SA, Nugent NB, Ridberg R, et al. Produce prescription projects: Challenges, solutions, and emerging best practices – perspectives from health care providers. *Prev Med Rep*. 2022;29. **doi:10.1016/j.pmedr.2022.101951**

Yaroch AL, Byker Shanks C, Nugent NB, Fricke H, Parks C. Potential of financial incentives to promote fruit and vegetable intake and support food security. *UN-Nutr J*. 2022;1:117-122. **doi:10.4060/cc2805en**

Appendix 10. Y3 TA&I Accomplishments

As a result of TA&I efforts, GusNIP and GusCRR grantees and applicants received around-the-clock support for implementation needs. The preceding report provides detailed site-level and participant-level findings. This appendix highlights key TA&I accomplishments and activities achieved in Y3. TA&I accomplishments during Y3 include:

- Provided high-touch support in response to 1000+ requests for one-on-one technical assistance from grantees and practitioners.
- Provided robust support to applicants during the FY22 GusNIP RFA cycle, including:
  - Responded to 299 individual requests for support (192 PPR, 107 NI);
  - Conducted one-hour consultations with 166 potential applicants (117 PPR, 49 NI) through a combination of one-on-one sessions, group sessions and webinars;
  - Facilitated six RFA-specific webinars on the following topics: NI, PPR, brick-and-mortar retail, local sourcing, budgeting, and reporting and evaluation considerations;
  - Developed eight new RFA-specific resources including templates and checklists.
- Hosted the Nutrition Incentive Hub 2022 National Convening (January 2022), featuring a keynote presentation by Dr. Sara Bleich, a virtual audience of more than 1100 attendees (15% increase from last year), and 33 sessions delivered by 144 speakers over three days.
- Provided technical assistance specific onboarding webinars for FY21 grantees on the following three topics: PPR, NI in brick-and-mortar and farm direct retail environments.
- Administered the Capacity Building and Innovation Fund (CBIF), which provides additional funding to current or past USDA GusNIP, GusCRR, and Food Insecurity Nutrition Incentive (FINI) grantees and their partners to help implement, scale or innovate within projects. Two cohorts of the CBIF were awarded during Y3:
  - In December 2021, nine organizations were awarded a total of $400,000. A complete list of awardees and project overviews is available **here**;
  - In August 2022, 24 organizations were awarded a total of $1,000,000. A complete list of awardees and project overviews is available **here**.
- Provided scholarships for six grantees to attend the 2022 National Grocers Association (NGA) Show. During the NGA Show, the NGA Foundation hosted a networking event and matched grantees with retail partners.
  - After attending the NGA Show, one PPR grantee shared the following feedback, “Just wanted to let you know that attending the NGA 2022 Show has been so beneficial to our program. Networking with other grantees, exchanging lessons learned, and building connections will make our program better, stronger, and more efficient, resulting in U.S. helping more people in our target communities...”
- Provided support to four grantees that work in Native American communities to attend the Native American Nutrition Conference.
- Offered up to 20 hours of design and communications support to any grantee (13 grantees in Y3). Some highlights include: five new program websites, design of flyers and outreach materials, and content and design for program one-pagers.

Regarding NI Projects specifically, the TA&I team:

- Provided one-on-one TA for NI grantees and practitioners seeking to leverage state funds in their match fundraising. Subsequently, two grantees received first-time funding from state legislatures.
- Developed 53 resources focused on program implementation, delivered 15 webinars, and facilitated opportunities for NI grantees to connect with each other through communities of practice, learning cohorts, and a mini-convening.
- Offered five communities of practice to provide facilitated peer learning opportunities for grantees on a bi-monthly basis. Communities of practice addressed the following topics: nutrition education, NI programs in corner stores, brick-and-mortar retail environments, DEI and local sourcing.

    - The Food Trust (TFT) facilitated a community of practice on nutrition education and NI programs operating in corner stores.
    - The National Grocers Association Foundation (NGAF) launched a new community of practice for programs operating in brick-and-mortar retail environments.
    - Michigan State University Center for Regional Food Systems (MSU CRFS) facilitated a diversity, equity, and inclusion (DEI) community of practice and co-facilitated a community of practice with NGAF on local sourcing in brick-and-mortar retail environments.
- Offered three learning cohorts that provided members with an opportunity for small-group support, learning and technical assistance focused on a specific topic of interest. Learning cohort topics included: state funding for NI, facilitated by Farmers Market Coalition (FMC) and Fair Food Network (FFN), incentives for CSA programs, facilitated by FMC and Fair Share CSA, and e-tokens facilitated by FMC and MIFMA.
- With guidance and support from the State Funding for Nutrition Incentives Learning Cohort, three cohort members secured the state funding during Y3:
    - Market Umbrella (LA) secured $889,000 in the Louisiana State Budget for their Greaux the Good program.
    - Field and Fork Network (NY) secured $2M in the NY state budget for Double Up Food Bucks NY.
    - Hunger Free Oklahoma (OK) secured $1.1M in the state budget.
- Hosted a mini-convening during summer 2022 (11 grantees) focused on incentive programs operating in rural communities. Participants attended sessions focused on incentive programs during the Rural Grocery Summit hosted by Kansas State University. During the mini-convening, attendees were hosted by a GusNIP grantee and traveled across the state to visit rural program sites, troubleshoot challenges, and discuss opportunities in rural communities. The mini-convening ended with an in-person visit with representatives from USDA NIFA in Kansas City.

Regarding PPR Projects specifically, the TA&I team:

- Held four PPR community of practice calls on the following topics:
    - Technology solutions that support PPR programs in implementation, evaluation, incentive disbursement/redemption;
    - Redemption barriers and strategies for PPR programs, theory of change for PPR programs;
    - Challenges and needs in the technology space at the point-of-incentive transaction; and
    - Models for successful collaboration with health care partners on PPR programs.
- Delivered webinars on the topics of PPR technology solutions and partnership models.
- Developed resources focused on supporting organizations in the start-up phase of establishing a PPR program.
- Dedicated time and resources to PPR transaction technology in the community of practice, in external webinars, and through listening sessions.
    - During two community of practice calls, Michigan Farmers Market Association (MIFMA), DAISA Enterprises, and the National Grocers Association Foundation (NGAF), facilitated a process to understand and define challenges related to PPR technology.
- Held a webinar with four solution providers (About Fresh, Epic Technology Solutions, Incomm Health, and Healthiby) that offered grantees and practitioners an opportunity to learn about solutions in a neutral environment.
- Held a listening session with 15 programs as well as follow-up conversations with eight programs to better understand the challenges related to transactions that take place in a brick-and-mortar retail environment.