Successful Community Nutrition Incentive Program Data Collection during the COVID-19 Pandemic: A Case Study

Sarah A Stotz,[1] Hollyanne Fricke,[2] Cameron Perra,[3] Carmen Byker-Shanks,[2] and Amy L Yaroch[2]

[1]Centers for American Indian and Alaska Native Health, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, CO, USA; [2]Gretchen Swanson Center for Nutrition, Omaha, NE, USA; and [3]Hunger Task Force, Milwaukee, WI, USA

ABSTRACT

Background: The coronavirus 2019 (COVID-19) pandemic has complicated rigorous evaluation of public health nutrition programs. The USDA Gus Schumacher Nutrition Incentive Program (USDA GusNIP) funds nutrition incentive programs to improve fruit and vegetable purchasing and intake by incentivizing Supplemental Nutrition Assistance Program (SNAP) participants at the point of sale. GusNIP grantees are required to collect survey data (e.g., fruit and vegetable intake and food insecurity status) on a subset of participants. However, due to COVID-19, most GusNIP grantees faced formidable barriers to data collection. The Hunger Task Force Mobile Market (HTFMM), a Wisconsin-based 2019 GusNIP grantee, used particularly innovative methods to successfully collect these data ($n > 500$ surveys).
Objectives: The aim was to explore HTFMM's successful participant-level data-collection evaluation during COVID-19.
Methods: A single case study methodological approach framed this study. The case is the HTFMM in Milwaukee, WI, USA. Participants included HTFMM leadership ($n = 3$), evaluators ($n = 2$), staff ($n = 3$), volunteers ($n = 3$), and customers ($n = 10$). These teleconference interviews were recorded and transcribed verbatim. Transcripts were coded using thematic qualitative analysis methods with 2 independent coders.
Results: Four salient themes emerged: *1)* there were multiple key players with unique roles and responsibilities who contributed to personalized, proactive, and time-intensive, telephone-based proctored survey collection methods; *2)* the importance of resources dedicated to comprehensive evaluation; *3)* longstanding relationships rooted in trust and community-based service are key to successful program delivery, engagement, and evaluation; and *4)* the COVID-19 data-collection protocol also serves to mitigate nonpandemic challenges to in-person survey collection.
Conclusions: These findings provide guidance on how alternative methods for data collection during COVID-19 can be used and applied to other situations that may affect the ability to collect participant-level data. These findings contribute to a growing body of literature as to best practices and approaches to collecting participant-level data to evaluate public health nutrition programs. *Curr Dev Nutr* 2022;6:nzac025.

Introduction

The coronavirus 2019 (COVID-19) pandemic has complicated rigorous evaluation of public health nutrition and community nutrition programs throughout the world. Traditional nutrition-specific tools to evaluate public health nutrition and community nutrition programs include surveys on dietary behaviors, 24-h dietary recall, food records, biometric measures (e.g., body weight), and clinical outcomes (e.g., blood pressure) (1–3). These measures are largely collected in person, and even without the social-distancing precautions related to COVID-19, public health nutrition and community nutrition professionals face challenges with collecting rigorous intervention evaluation data (4, 5).

Although online data collection for dietary behavior measures is plausible, in some audiences (e.g., older adults, those with limited digital literacy) formidable barriers exist to online dietary behavior data collection (6). Innovative, socially distanced, and rigorous evaluation methods are required to assess the validity of nutrition programs and interventions. There is little published material about successful approaches taken to evaluate these programs during the COVID-19 pandemic. The purpose of this case study is to highlight 1 public health nutrition program's successful participant-level program evaluation during the COVID-19 pandemic. These findings provide a foundation for best practices for future large-scale public health nutrition and community nutrition program evaluation during the COVID-19 pandemic and beyond.

USDA Gus Schumacher Nutrition Incentive Program

The Gus Schumacher Nutrition Incentive Program (GusNIP) provides funding opportunities for organizations across the United States to improve access to fruits and vegetables (FV) and stimulate local economies (7). GusNIP began in 2019 and is a 4-y effort funded by the USDA National Institute of Food and Agriculture (NIFA) through the 2018 Farm Bill; GusNIP was predated by the Food Insecurity Nutrition Incentive Program (FINI) from 2014 to 2018 (7).

GusNIP provides federal funding to implement and evaluate projects that provide incentives to increase the purchase and consumption of FVs by consumers with low income. There are 2 types of programs under the GusNIP funding mechanism: Produce Prescription (PPR) and Nutrition Incentive (NI) (7). This paper focuses on NI programs. Broadly, GusNIP NI goals are focused on *1*) increasing the purchase and consumption of FVs and *2*) reducing individual and household food insecurity. GusNIP NI programs seek to increase the purchase of FVs by consumers participating in the Supplemental Nutrition Assistance Program (SNAP), the largest federal food-assistance program, by providing incentives for FVs at the point of sale.

Key aspects of NI programs are severalfold. First, qualifying FVs can be any variety of fresh, canned, dried, or frozen whole or cut FVs without added sugars, fats or oils, and salt. Second, incentives are redeemed at the point of sale, including farm direct settings (e.g., farmers' markets, mobile markets, community-supported agriculture) and brick and mortar (e.g., supermarkets, grocery, corner stores). Finally, nutrition education and/or auxiliary services (e.g., transportation services) are commonly added to assist program participants to more effectively engage in these programs (7). GusNIP NI programs can be administered using a myriad of program designs. For example, a participant can spend $1 with SNAP and subsequently earn $1 for qualifying FVs at participating grocery stores via an electronic discount using a store loyalty card. Other examples of NI program mechanisms include tokens that can be redeemed at farmers' markets and farm stands, or discounts offered on community-supported agriculture shares, among other models.

Beginning in 2019, the USDA NIFA also funded a National Training, Technical Assistance, Evaluation, and Information Center (NTAE) as part of the GusNIP mechanism, to support grantees in program implementation, reporting, and evaluation. The NTAE developed a set of core metrics that all GusNIP grantees are required to collect. While heterogeneity among programs exists across geography, program design, evaluation, and methodology, shared measures can help elucidate the national impact of a large-scale program like GusNIP by aggregating data on key outcomes, including food security and FV consumption (8).

Hunger Task Force Mobile Market: a 2019 GusNIP NI grantee

This case study focuses on the efforts of 1 NI program to implement programming and conduct evaluation during COVID-19. Because of COVID-19, most GusNIP grantees faced formidable barriers to this participant-level data-collection requirement beginning in 2019. However, the Hunger Task Force Mobile Market (HTFMM) used innovative methods to successfully collect these data.

The HTFMM, based in Milwaukee, Wisconsin, USA, is a 2019 Gus-NIP NI program grantee that has leveraged its funding to expand its mobile market reach and offers a 25% discount on all eligible foods. Hunger Task Force is a multicomponent food-aid program with a long-standing history of community-engaged service to improve food access in the areas it serves (9). Hunger Task Force developed the Mobile Market concept to provide access to FVs to individuals who experience low income and presents an alternative to emergency food pantries for people with limited access to food in the city of Milwaukee (9).

As required by all GusNIP grantees, HTFMM collected the required core metrics, participant-level survey data, throughout the COVID-19 pandemic. The HTFMM successfully collected more than 500 surveys, greatly surpassing the 2019 NTAE requirement of 150 surveys. The purpose of this case study is to use qualitative inquiry to understand the process, facilitators, and best practices of HTFMM regarding its participant-level survey data collection successes during COVID-19.

Methods

Study design

This study is framed by a constructivist (10), instrumental, single case study design, and the unit of analysis is defined as the HTFMM (11). Case study methodology is useful for in-depth formative evaluation of public health programs as it allows researchers to view problems from multiple perspectives and aids in enriching the meaning of a singular perspective (11). In an instrumental case study, the methodology is often used to accomplish something other than understanding a particular situation (e.g., case), in that the case is actually of secondary interest and serves as a supportive role in facilitating understanding of something else (12). In this particular research project, the HTFMM case is used to understand facilitators for successful GusNIP-required participant-level data collection. Due to its flexibility and rigor, the case study approach is valuable for public health research to evaluate programs and develop interventions (13). Ethical approval of this research was obtained from the University of Nebraska Medical Center on 4 March 2021 [Institutional Review Board (IRB) #829–20-EX] and the IRB determined it exempt, so no informed consent was required. The study was completed in compliance with waiver of consent, and participants were provided with an information sheet prior to data collection informing them of the purpose of the study.

Case study site

The HTFMM is a single-aisle grocery store in a car trailer pulled by a truck. Stocked with fresh produce, meat, and dairy, it has coolers with sliding glass doors and stainless-steel shelves for produce displayed in baskets. The HTFMM is scheduled for two 90-min stops per day at low-income and senior housing developments, community centers, college campuses, and workplaces. While the HTFMM is open to all, older adults make up most of the customers. The HTFMM offers up to 50 varieties of locally sourced produce—as well as meat, dairy, eggs, butter, and juice—at 25% off the grocery partner's lowest store prices. The HTFMM accepts credit and debit cards, including SNAP (known as FoodShare in the state of Wisconsin) (9, 14). Images of the HTFMM can be found in **Figure 1**.

Participants and recruitment

Purposive sampling recruitment strategies guided participant recruitment and selection (15). HTFMM leadership, external/internal evaluators, staff, and volunteers were recruited though e-mail invitation and

FIGURE 1 Images of the Hunger Task Force Mobile Market. Photo Credit: Hunger Task Force, Marketing Department, Milwaukee, WI, USA.

all agreed to participate. HTFMM customers were recruited by verbal invitation from the HTFMM volunteers who had called them to complete a telephonic, proctored survey (GusNIP survey data not part of this dataset). Researchers have no record of the number of customers who declined to participate; however, 3 of the 13 customers who initially agreed were not reachable to schedule the subsequent 1:1 interview. If customers accepted the opportunity to be interviewed for this HTFMM case study, they were scheduled for a subsequent telephone-based interview and received a $15.00 gift card for their time. HTFMM leadership, external/internal evaluators, and staff were not compensated for their time, and participation in the study was not a condition of their employment.

Data collection

One trained qualitative researcher co-author (SAS) interviewed all participants between March and May 2021. Recruitment and data collection concluded when data saturation was reached (16). Zoom was used for HTFMM leadership, evaluators, staff, and volunteer interviews, whereas a telephone-based call-recording application was used for customer interviews (17). The purpose of the latter strategy was to

ease the potential technological burden on customers as the researcher was able to call these participants directly on their preferred telephone line as opposed to requesting they log into Zoom. Interviews averaged 36 min and ranged from 13 to 65 min in length. The qualitative researcher used a semi-structured interview guide with probes (18), developed in collaboration with HTFMM evaluators and 2 additional qualitative researchers. Moderator guides can be found in **Table 1**.

Data analysis

All recorded interviews were transcribed verbatim by a professional transcription company. After professional transcription, transcripts were checked for accuracy in their entirety by the lead qualitative researcher and deidentified using "[NAME]." The research team utilized Atlas.ti (Scientific Software Development GmbH) (Mac version 8.1.1) to digitalize and increase transparency in the analytic process (19). Two researchers independently double-coded 25% of the transcripts (20). The 2 coders reached >90% concordance in their independent coding (20). The first round of coding included inductive free coding of 2 transcripts, where no predetermined codebook was utilized (20). Coders met after each of these 2 transcripts were independently coded to discuss the codebook and agree on code definitions. At this point, deductive (*a priori*) codes were also developed based on the moderator guide and were added to the second round of coding. During the second round of coding, the lead qualitative researcher reviewed all transcripts with the agreed-upon codebook, including inductive and deductive codes. After all transcripts were coded, researchers summarized and collapsed codes into categories. For example, codes "challenges_literacy," "inclement weather," and "difficult survey questions" were grouped together under category "benefits_proctored surveys" (20). Ultimately, the categories revealed key overarching themes in this thematic analysis (21). The analysis and findings follow the COREQ (Consolidated Criteria for Reporting Qualitative Research) guidelines, a 32-item checklist meant to guide rigorous and systematic reporting of qualitative research (22).

Results

Findings reflect cross-cutting themes from all interviews. Researchers interviewed 100% of the HTFMM leadership ($n = 3$), 100% of the external/internal evaluators ($n = 2$), 75% of the relevant staff ($n = 3$), 80% of volunteers ($n = 3$), and customers ($n = 10$). Four salient themes emerged across these interviews. First, there were multiple key players with unique roles and responsibilities who contributed to personalized, proactive, and time-intensive telephone-based proctored survey collection methods. Second, adequate resources (e.g., expertise and funding) are needed for rigorous evaluation. Third, HTFMM patrons had longstanding relationships rooted in trust with HTFMM, a key factor that motivated them to agree to complete evaluation surveys. Fourth, the COVID-19 social-distancing data-collection protocol also serves to mitigate nonpandemic challenges to in-person survey collection.

There are multiple key players with unique roles and responsibilities who contributed to personalized, proactive, and time-intensive telephone-based, proctored survey collection methods. One of the crucial collaboration features between key players included a "warm handoff" from in-person HTFMM staff to telephone-based volunteers who proctor surveys, to avoid "cold calling" customers for survey data collection.

Participants shared the unique roles they each played in conducting participant-level program evaluation. One HTFMM leader said,

> "I can't tell you what the key ingredient is—I mean, it's people. It's all of our people—our staff, our University partners, having dedicated customers, it's all what makes these programs and projects work in our community. Having [NAME] to lead the GusNIP evaluation is crucial—and then we do use a lot of volunteers—we couldn't do what we normally do without volunteers every step of the way."

In lieu of providing additional quotes from respondents about how their individual roles contributed to the success of the data-collection procedures, authors have provided an overview of the key roles and responsibilities (see **Table 2**). Key roles and responsibilities are summarized in Table 2.

Importance of resources dedicated to comprehensive evaluation. Central to the resources needed to conduct this successful program evaluation was the strategic planning, vision, and support from HTFMM leadership to hire a full-time evaluation expert who had extensive experience in public health program evaluation and public policy analysis. This HTFMM evaluation expert shared the following:

> "Since last year when we started working on the evaluation projects (…) we really started seriously meeting with [NAME] and others from GusNIP. My role has just been kind of heading up the evaluation side of the Mobile Market in its entirety. That has meant kind of identifying and getting linked up with the researcher side of things so the three researchers that we're working with that *another* employee at the Hunger Task Force had a connection with and has worked with before on research. (…) We kind of sat down to determine big picture what our research goals we want to get out of this project. How to approach it, the big picture methodology things which was process over some time last summer and then my role has been the implementation. (…) kind of project management of the evaluation has been my role."

Another key resource included securing a small grant to support evaluation start-up costs that were not included in the larger USDA GusNIP grant. This grant (∼$6000) was awarded to collaborating external evaluator academic partners and HTFMM evaluation experts and supported access to required Collaborative Institutional Training Initiative (CITI) training for all players who handled human subjects research (e.g., recruitment, data collection, data management), data analysis software, and program marketing. Volunteers were also provided with HTFMM cell phones, including paid data plans to support their data-collection phone calls. Finally, human resources, which included both paid (e.g., staff) and volunteer time, were crucial to successfully collecting survey data. Details of the time needed by each key player are outlined in Table 2.

Longstanding relationships rooted in trust and community-based service are key to successful program delivery, engagement, and evaluation. Participants shared many examples of how longstanding relationships between key players have facilitated HTFMM evaluation efforts, especially during the COVID-19 pandemic. For example, customer participants shared sentiments of gratitude for Hunger Task Force as an organization, as well as shared about their robust use of Hunger Task Force resources beyond the mobile market. Customers shared that it was this "reputation in our community" that prompted them to participate in

TABLE 1 Moderator guides used for qualitative individual interview data collection[1]

Participant type	Primary interview questions	Probes	Rationale for question
HTFMM leadership, evaluation experts, staff, and volunteers	Tell me about the Hunger Task Force Mobile Market (HTFMM)	Audience served, funding, duration, stocking, marketing	Overall context for the HTFMM
	Tell me about your role with the HTFMM	Expertise, title, daily tasks, duration	Context for positionality in HTFMM
	Tell me about COVID-19 effects on HTFMM	Changes, challenges, lessons learned, strengths	Understand standard operating procedure vs. COVID-19 operating procedures
	Walk me through your role in the surveys customers take after using HTFMM	Recruitment, time needed, training	Understand positionality of each key participant in HTFMM participant-level evaluation
	After COVID-19, what do you think the HTFMM customer survey data-collection process will look like?	Recruitment, survey completion, customer interest	Understand perspectives as to what "post COVID-19" data collection could include
HTFMM leadership and evaluation experts only (additional interview questions)	If another GusNIP grantee asked you for advice on how to continue operations and evaluation of their program during COVID-19, what would you say?	Resources needed, strengths, challenges and solutions	Understand how key HTFMM informants explain their program evaluation success during COVID-19
	What resources would have been/would be helpful to support your COVID-19–adapted program evaluation?	Resources available, resources lacking, resources needed	Understand how best to support GusNIP grantees with participant-level data collection
	Tell me about an aspect of your Hunger Task Force Mobile Market COVID-19 program evaluation of which you are especially proud	N/A	Strengths- and assets-based approach
HTFMM customers	Tell me what healthy eating means to you	Content, frequency, health concerns	Opening question to build confidence for interviewee
	There are many new resources being developed across the US to help folks gain greater access to fresh, healthy food. The Hunger Task Force Mobile Market is a very unique program. Can you tell me about your experience using this Mobile Market?	Prices, food quality, convenience, budget, health	Contextualize customer experience with HTFMM
	I understand that, just like today's telephone call with me, someone from the Hunger Task Force Mobile Market called you to complete a survey. Can you tell me about that?	Challenges, time it took, what motivated them to participate	Understand customer perspective of survey-based program evaluation
	Sometimes it's hard to get people to take the time to complete surveys, or even to participate in a phone call like we're doing now. Can you share any ideas of how we can get more customers of the Mobile Market to complete these surveys?	Incentives, gift cards, stipends, length, reward	Understand customer recommendations to improve engagement in program evaluation
	The people who developed the Hunger Task Force Mobile Market are interested in learning from customers about completing surveys for evaluating the Mobile Market. What are your thoughts on things like how often you would be willing to take a survey or how long it should be as not to be inconvenient for a customer?	Frequency, length, format taking survey, incentives	Continuing improvement for program evaluation procedures

[1]COVID-19, coronavirus 2019; N/A, not applicable.

TABLE 2 Key roles, responsibilities, and resources needed in HTFMM Nutrition Incentive program evaluation[1]

Key role	Responsibilities	Responsibility frequency	Time and training	Notes
HTFMM evaluation expert	• Set up data collection protocol • Manage volunteer and staff schedules • Train all volunteers and staff • Facilitate communication across evaluation team • Manage recruitment/data-collection spreadsheet • Data cleaning, data analysis • Reporting	Throughout	• Setup period ~1 mo at 20 h/wk • Training period ~2 mo at 10 h/wk • Ongoing communication, scheduling, data cleaning ~weekly at 2 h/wk • Manage recruitment/data-collection spreadsheet ~weekly at 1 h/wk • Analysis and reporting approximately as needed (e.g., end of year reporting) at 20 h/wk	• Has training in International Development, background in public policy analysis and is full-time employee at HTFMM • Is bilingual (Spanish/English) and reviews all bilingual materials • Proctors customer telephone surveys as there are no bilingual volunteers
Academic partner–evaluation expert	• Establish additional funding evaluation purposes (e.g., CITI, software, advertising) • Advise protocol for data collection • Secure Institutional Review Board approval • Advise for data analysis and reporting	For protocol setup and analysis	• PhD-level evaluation and marketing expert • 4+ meetings with HTFMM leadership/evaluation team	• Has collaborated with HTFMM since 2017 on additional projects and has longstanding history of contribution to evaluation efforts
HTFMM leadership	• Strategic planning • Management of HTFMM activities • Hire full-time evaluation expert • Continue collaboration with academic expert • Weekly "hands on" experience in the field with customers of HTFMM	Throughout	• Ongoing	
HTFMM staff	• Assist customers at HTFMM with shopping (e.g., logistics of entering/exiting the mobile market) • Educate customers on food-assistance programs available • Enroll customers in food-assistance programs as needed • Recruit customers to participate in telephonic, proctored GusNIP survey (e.g., collect telephone numbers and schedule) • Enter interested customer information into recruitment/data-collection spreadsheet	Daily	• Standard HTF staff training • CITI training (for customer recruitment) • Scripted recruitment training by HTFMM evaluation expert • Weekly at HTFMM—per stop ~90 min × 1–4 stops/wk + ~30 min spreadsheet update per stop per staff member (total across all staff members 6–10 stops/wk)	• At the time of data collection HTFMM had 3 staff members who shared this responsibility • Two staff members were bilingual (Spanish/English)

(Continued)

TABLE 2 *(Continued)*

Key role	Responsibilities	Responsibility frequency	Time and training	Notes
HTFMM volunteers	• Refer to recruitment/data-collection spreadsheet to determine which customers need to be called during any given volunteer "shift" • Track telephone call reach-outs • Make telephone calls to customers to proctor participant-level GusNIP surveys • Enter proctored data directly into Qualtrics (Qualtrics) • Communicate with HTFMM evaluation expert if participant has questions, concerns, needs related to HTFMM or food aid that are "off script" from the GusNIP survey	Weekly	• Standard HTF volunteer training • Onboarding with HTFMM evaluation expert at 2 h prior to first volunteer shift • Stay abreast of e-mail updates, "cheat sheet" documents (e.g., locations of HTFMM) • Shifts weekly at 3 h/wk • Each proctored survey ~15 min; most complete ~5–8 surveys per shift	• At the time of this data collection there were 4 HTFMM volunteers participating in GusNIP survey telephone calls • Each volunteer had been with HTF for many years (average 12 y) with other non-survey–proctoring responsibilities • Volunteers were provided an HTFMM cell phone but use their own computer and internet access

[1]CITI, Collaborative Institutional Training Initiative; GusNIP, Gus Schumacher Nutrition Incentive Program; HTF, Hunger Task Force; HTFMM, Hunger Task Force Mobile Market.

the survey. One customer shared her rationale for participating in the survey:

> "I like to help people, especially if they're trying to get information to improve something they've got going. I mean, they're helping me—lots of people like me, and I hope that it's something they can continue. So they need to know if it's [the program] working or not."

HTFMM leadership and HTFMM external evaluation experts shared that it was their longstanding relationship with university-based academic partners that helped them secure IRB approval (a requirement of all GusNIP grantees and not always easy for community-based organizations to navigate) and the aforementioned supplemental grant to support evaluation start-up costs. HTFMM leadership indicated that they did not experience any delays with establishing this community–academic partnership for their GusNIP project because they had already collaborated on similar evaluation efforts in the past. The HTFMM external evaluator shared their perspective on the challenges that community-based organizations may have without longstanding relationships with academic evaluation experts:

> "I think about someone else, if they were trying to establish this academic partnership for the first time (…) I think about those other groups where they suddenly realized they had to do IRB. (…) Because even if they're going to go through IRB on their own, understanding an informed consent document (…). That's a very specialized piece of knowledge that I don't know if all of your grant recipients have access to. Helping them overcome that

hurdle of IRB and CITI training and all of those things, I imagine would save time."

HTFMM evaluators and leadership indicated that longstanding trust, visibility, and community service are key to encourage patrons and participants to engage in evaluation efforts. One HTFMM evaluator explained:

> "They see an organization that they know and trust, they're more likely to trust information or respond to the survey."

Finally, both HTFMM leadership and volunteers shared the reason their volunteer base was so strong and why volunteers "just keep sticking around" is because of the Hunger Task Force's reputation for quality service to the Milwaukee communities, the variety of opportunities for volunteers (especially prior to COVID-19), and the sense of "contributing to community" that volunteers felt being part of an organization like Hunger Task Force. A HTFMM leader shared the following:

> "We couldn't do what we do normally without volunteers. And we just have such a good reputation in the community that these are volunteers that have just been with [us] forever."

COVID-19 social-distancing data-collection protocol also serves to mitigate nonpandemic challenges to in-person survey collection. In response to moderator guide questions about strengths of the current participant-level data-collection protocol, and what interviewees anticipate would change once "COVID-19 is over," many focused on "staying the course" with the current system. Although the telephonic proctored survey protocol was implemented in response to COVID-19 precautions and limitations on face-to-face time with customers, there

are a myriad of additional benefits to telephonic proctored surveys. Volunteers shared that they often had to explain survey questions to customers, that they helped think through how to remember answers to questions about FV consumption (e.g., food-frequency questions), and that "some of the survey could be tricky if you didn't read well, or even couldn't see the screen or page very well." HTFMM staff and customers suggested that, because of the weather in Wisconsin, many people would not want to "stand in the cold any longer than they have to, just to take a survey" and that given that many of the customers were older adults, there are issues with mobility and standing for long periods of time. One customer shared the following:

"After I get my groceries at the market, walking across the parking lot to get there, walking through the market, paying and all that—I'm spent and that's it for the day for me."

In these cases, a subsequent telephone call for survey data collection proved beneficial to substantially decrease participant burden. When queried as to what it might look like to eliminate the HTFMM staff role and just offer a sign-up sheet for those willing to complete a subsequent survey, HTFMM evaluation experts, staff, and volunteers all agreed that would greatly limit the number of surveys completed. Staff shared their creative "sales-pitch" strategy for asking customers to agree to a post-shopping telephone call. They suggested "just being friendly" and "helping them [customers] with their grocery bags" can be very effective recruitment strategies to get participants to fill out surveys. The volunteers especially emphasized that their role is far easier because of the "warm handoff" method, and since they usually call customers within a few days of their shopping experience, most customers remember having agreed to completing the survey; remember the friendly, helpful, and personal contact with the staff member; and are more willing to complete the telephonic survey. One volunteer explained,

"Well, each week, we have a spreadsheet that's maintained on the server that we can access. [NAME] puts all of the potential candidates that they've gleaned from the last few days of the market operating. So they're getting the phone numbers for us already. So it's nice that we're not cold-calling people. It's a little easier when you're calling someone to do a survey and they already know it upfront. I don't have to try and convince the person, 'Hey, are you willing to do this survey?'"

Finally, HTFMM staff, volunteers, and customers suggested that the personal contact, whether it was helping carry groceries from the mobile market to one's car or apartment or facilitating subsequent telephone conversations to "break up the day," were especially important during COVID-19 where many of the customers conveyed that they felt isolated and lonely. This personal contact adhered to social-distancing guidelines for COVID-19 precautions as all interactions were outside or via telephone. Consistent across all types of interviewees, ideas about providing a weblink or QR code to complete the survey online independently, using paper surveys, or offering onsite (e.g., at the HTFMM) surveys did not seem as efficient or effective as their current protocol. Additionally, most HTFMM customers, staff, volunteers, and leadership did not think offering a stipend (e.g., gift card) for survey completion would be necessary and thought it would be logistically complex to disseminate. Together, these findings elucidate the facilitators and strengths of HTFMM's innovative and effective GusNIP participant-level data-collection protocol and implementation.

Discussion

The 4 key themes as constructed across all interviews highlight the strengths and facilitators of HTFMM's successful participant-level data-collection efforts throughout the COVID-19 pandemic. Literature supports the use of a strengths-based approach to public policy and program evaluation (23, 24), and the theory of positive deviance suggests the importance of examining situations where an uncommon, but desirable, strategy or solution is successfully used despite facing similar challenges as peers (25, 26). In light of this theoretical and literature-based support, findings from this study can inform best practices and guide other community-based organizations that face barriers to collecting participant-level survey data. Key strengths and facilitators are central to all 4 themes: collaboration across multiple unique roles among the HTFMM team, prioritization of resources to support evaluation, leveraging longstanding relationships, and recognizing the importance of alleviating participant burden through accommodating data-collection methods. Researchers believe the nuance between 2 themes made it important to delineate findings into 4 themes—notably, the first and third theme. Not only was collaboration across multiple team members with unique roles crucial to successful participant-level survey data collection (theme 1), but the unique, longstanding relationships that Hunger Task Force has built over many years of community service (theme 3) led to robust volunteer and customer engagement. Together, these 2 themes exemplify the synergy of multiple HTFMM team member roles within the context of a longstanding, trusting, service-based environment—which led to successful participant-level data collection.

A robust body of literature examines how telephonic survey data collection compares with internet-based or paper-and-pencil survey data collection (27, 28). Cost-effectiveness studies suggest telephonic survey collection to be the most expensive and highest "labor" investment (29, 30), but responsiveness and recruitment efficacy literature suggests that telephonic surveys yield higher response rates (30). The HTFMM audience is largely older adults who experience limited income. Therefore, internet-based survey data collection likely would not align with this audience, given challenges with accessing the internet, digital literacy, and concerns with vision (e.g., to read a survey) (27). Additionally, because HTFMM utilizes a volunteer-based "workforce" for telephonic survey data collection, the relative cost of this method is minimal. Finally, HTFMM uses a "warm handoff" method for telephonic survey data collection, wherein HTFMM staff members recruit customers in person and volunteers aim to call each recruited customer within several days of this in-person recruitment. It is well established that "cold calling" for survey data collection does not yield favorable response rates, and HTFMM's innovative use of a timely staff-to-volunteers handoff method mitigates this barrier (28, 31).

There are several noteworthy limitations in this study design. As a result of the customer recruitment strategy, researchers did not speak with HTFMM customers who elected not to participate in the participant-level survey, as volunteers who proctored these telephonic surveys served as the agents for recruitment (e.g., at the end of a survey call, customers were invited to participate in a subsequent interview with researchers). Therefore, there may be a potential social desirability bias for the customers who participated in this study. Additionally of note, HTFMM customers are largely older adults; therefore, this successful participant-level data-collection experience may be most relevant to

older adults as a priority audience. It may be with a younger audience that self-administered online survey data collection would be equally as successful. Although the sample size is small, researchers are confident that saturation was reached for customer-level interviews ([16]), and all HTFMM leadership (100%) and almost all relevant staff and volunteers (75% and 85%, respectively) were included in the sample. The strength of single, instrumental case study methodology privileges the synergy of multiple vantage points to any given topic—in this case, HTFMM participant-level survey data collection. In conclusion, these findings demonstrate the importance of qualitative research to inform best practices, and this case study exemplifies innovative efforts to diversify and amplify recruitment efforts for survey data collection. This case study outlines an excellent example of how a community-based organization was able to overcome challenges related to data collection during a pandemic and contributes to a growing body of literature as to best practices and approaches to collecting participant-level data to evaluate public health nutrition programs.

Implications for Policy and Practice

1) First, collaboration across multiple roles on the implementation team (e.g., staff, volunteers, leadership) is essential to distribute the workload and effort needed to collect participant-level evaluation data.
2) Second, resources for evaluation should be prioritized in community-based, grant-funded programs and be allowable costs with the grant guidance.
3) Third, partnerships between community-based organizations, academic institutions, and community-based volunteers can be effective evaluation collaborations.
4) Fourth, telephonic, proctored survey data collection may be effective and may mitigate participant burden and accommodate COVID-19 social-distancing safety guidelines.

Acknowledgments

Data Availability

Data described in the manuscript, code book, and analytic code will be made available upon request pending approval from research site.

References

1. Sarma H, D'Este C, Ahmed T, Bossert TJ, Banwell C. Developing a conceptual framework for implementation science to evaluate a nutrition intervention scaled-up in a real-world setting. Public Health Nutrition 2021;24(S1):s7–s22.
2. Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. Am J Public Health 1999;89(9):1322–7.
3. Naja-Riese A, Keller KJM, Bruno P, Foerster SB, Puma J, Whetstone L, MkNelly B, Cullinen K, Jacobs L, Sugarman S. The SNAP-Ed evaluation framework: demonstrating the impact of a national framework for obesity prevention in low-income populations. Transl Behav Med 2019;9(5):970–9.
4. Shah HD, Adler J, Ottoson J, Webb K, Gosliner W. Leaders' experiences in planning, implementing, and evaluating complex public health nutrition interventions. J Nutr Educ Behav 2019;51(5):528–38.
5. Ramanathan S, Allison KR, Faulkner G, Dwyer JJM. Challenges in assessing the implementation and effectiveness of physical activity and nutrition policy interventions as natural experiments. Health Promot Int 2008;23(3):290–7.
6. Lefever S, Dal M, Matthíasdóttir Á. Online data collection in academic research: advantages and limitations. Br J Educ Technol 2007;38(4):574–82.
7. USDA; National Institute of Food and Agriculture. Gus Schumacher Nutrition Incentive Program [Internet]. Huger & Food Security Programs. 2020 [cited 2021 Jul 26]. Available from: https://nifa.usda.gov/program/gus-schumacher-nutrition-incentive-grant-program/
8. Budd Nugent N, Byker Shanks C, Seligman H, Fricke H, Parks C, Stotz S, Yaroch A. Accelerating evaluation of financial incentives for fruits and vegetables: a case for shared measures. Int J Environ Res Public Health 2021;18(22):12140.
9. Hunger Task Force Mobile Market. Hunger Task Force Free & Local [Internet]. 2021 [cited 2021 Aug 30]. Available from: https://www.hungertaskforce.org/what-we-do/mobile-market/.
10. Carter S, Little M. Justifying knowledge, justifying method, taking action: epistemologies, methodologies, and methods in qualitative research. Qual Health Res 2007;17(10):1316–28.
11. Stake RE. The art of case study research. Thousand Oaks (CA): SAGE Publications; 1995.
12. Patton MQ. Qualitative evaluation methods. Thousand Oaks (CA): SAGE Publications; 1980.
13. Yin R. Case study research: design and Methods. 3rd ed. Thousand Oaks (CA): SAGE Publications; 2003.
14. Wisconsin Department of Health Services. FoodShare [Internet]. 2021 [cited 2021 Aug 30]. Available from: https://www.dhs.wisconsin.gov/foodshare/index.htm.
15. Swift JA, Tischler V. Qualitative research in nutrition and dietetics: getting started. J Hum Nutr Diet 2010;23(6):559–66.
16. Saunders B, Sim J, Kingstone T, Baker S, Waterfield J, Bartlam B, Burroughs H, Jinks C. Saturation in qualitative research: exploring its conceptualization and operationalization. Qual Quantity 2018;52(4):1893–907.
17. Lupton D. Doing fieldwork in a pandemic (crowd-sourced document) [Internet]. 2020 [cited 2022 Jan 25]. Available from: https://docs.google.com/document/d/1clGjGABB2h2qbduTgfqribHmog9B6P0NvMgVuiHZCl8/edit?ts=5e88ae0a#.
18. Roulston K. Reflective interviewing. Los Angeles (CA): SAGE Publications; 2010.
19. Paulus T, Lester J, Deptster P. Digital tools for qualitative research. 1st ed. Los Angeles (CA): SAGE Publications; 2014.
20. Saldaña J. The coding manual for qualitative researchers. 2nd ed. Thousand Oaks (CA): SAGE Publications; 2012.
21. Vaismoradi M, Turunen H, Bondas T. Content analysis and thematic analysis: implications for conducting a qualitative descriptive study. Nurs Health Sci 2013;15(3):398–405.
22. Tong A, Sainsbury P, Craig J. Consolidated Criteria for Reporting Qualitative Research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care 2007;19(6):349–57.

23. US Department of Health and Human Services. Introduction to program evaluation for public health programs: a self study guide [Internet]. Atlanta (GA): Program Performance and Evaluation Office; 2011. Available from: https://www.cdc.gov/eval/guide/index.htm.

24. Maton KI, Dogden DW, Leadbeater BJ, Sandler IN, Schellenbach CJ, Solarz AL. Strengths-based research and policy: an introduction. In: Maton KI, Schellenbach CJ, Leadbeater BJ, Solarz AL, editors. Investing in children, youth, families, and communities: strengths-based research and policy. Washington (DC): American Psychological Association; 2004. p. 3–12.

25. Herington M, van de Fliert E. Positive deviance in theory and practice: a conceptual review. Deviant Behav 2018;39(5):664–78.

26. Marsh DR, Schroeder DG. The positive deviance approach to improve health outcomes: experience and evidence from the field. Food Nutr Bull 2002;23(4 Suppl):101–8.

27. de Leeuw E. Choosing the method of data collection. In: de Leeuw E, Hox J, Dillman D, editors. International handbook of survey methodology. Oxfordshire (UK): Taylor & Francis Group/Lawrence Erlbaum Associates; 2008. p. 113–15.

28. Sitzia J, Wood N. Response rate in patient satisfaction research: an analysis of 210 published studies. Int J Qual Health Care 1998;10(4):311–17.

29. Potoglou D, Kanaroglou PS, Robinson N. Evidence on the comparison of telephone and internet surveys for respondent recruitment. Open Transport J 2012;6(1):11–22.

30. Sinclair M, Otoole J, Malawaraarachchi M, Leder K. Comparison of response rates and cost-effectiveness for a community-based survey: postal, internet and telephone modes with generic or personalised recruitment approaches. BMC Med Res Methodol 2012;12(1):1–8.

31. Braunsberger K, Wybenga H, Gates R. A comparison of reliability between telephone and web-based surveys. J Bus Res 2007;60(7):758–64.