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Facilitators and barriers to family child care home participation in the U.S. Child and Adult Care Food Program (CACFP)

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ABSTRACT

This paper describes facilitators, barriers, and potential strategies to promote participation in the Child and Adult Care Food Program (CACFP) by family child care homes (FCCHs). This descriptive study occurred from January-May 2022 in Arizona and New York, two states with varying levels of CACFP participation. Stakeholders from three state-level CACFP-administering agencies, representatives of six sponsor organizations, and 23 FCCH providers (70% CACFP, 30% non-CACFP) participated in interviews. Facilitators of CACFP participation included the simple enrollment, technical assistance from sponsors, software provided by sponsors, and incentives from state agencies. Barriers included perceptions that CACFP paperwork would be burdensome, lack of access to sponsors, and challenges with meal pattern requirements. Recommended strategies to promote CACFP uptake included educating providers about CACFP, expanding outreach, and additional funding. Efforts to address state-level disparities in FCCH participation in CACFP are needed. This study provides some insight into policy and systems changes that could be beneficial.

1. Introduction

Dietary habits established in early childhood can have lifelong impact on child health (Jackson et al., 2020; Shrestha and Copenhaver, 2015), and family child care homes (FCCHs) are important settings to promote healthy habits (Jackson et al., 2020; Benjamin-Neelon, 2018). About 59 % of U.S. children under the age of six years are in child-care programs, 20 % of whom are cared for in private homes (e.g., FCCHs) by a non-relative (National Center for Education Statistics, 2019). FCCHs are small businesses in which a provider cares for children of multiple ages out of her/his own home (Erinosho et al., 2019; Neshteruk et al., 2018). National guidelines recommend that children receive half- to-two-thirds of their daily calorie and nutrient requirements at full-day child-care (Benjamin-Neelon, 2018), but studies report the need to enhance the diet quality of foods/beverages provided to and consumed at FCCHs (Erinosho et al., 2019; Tovar et al., 2018; Williams et al., 2021).

The Child and Adult Care Food Program (CACFP), a federally-funded feeding program regulated by U.S. Department of Agriculture and administered by states, reimburses FCCHs for serving nutritious meals to low-income children (U.S. Department of Agriculture, Food and Nutrition Service, 2022). FCCHs that are licensed or approved to provide child-care are eligible to participate in this voluntary program, but reimbursement for meals served is based on a tiering system (Hamilton et al., 2022; U.S. Department of Agriculture, 2013). Tier 1 homes are in low-income areas or operated by providers with income ≤185 % of the federal poverty line, and receive higher reimbursement rates (Hamilton et al., 2002; U.S. Department of Agriculture, Food and Nutrition Service, 2022; Hamilton et al., 2022). Tier 2 do not meet the low-income criteria, and receive lower reimbursement; but Tier 2 homes can be reimbursed at Tier 1 levels for meals served to individual children whose household income is ≤185 % of the federal poverty line (Hamilton et al., 2002; U.S. Department of Agriculture, Food and Nutrition Service, 2022; Hamilton et al., 2022). In 2021–2022, the average lunch reimbursement was $2.63 for Tier 1 versus $1.59 for Tier 2 (U.S. Department of Agriculture, Food and Nutrition Service, 2021); thus, a Tier 1 provider caring for 8

children for 20 days was reimbursed ~$421, versus ~$254 for Tier 2, a $167 difference. FCCHs in CACFP must work with a sponsor, which is a public/private non-profit organization that takes on the administrative responsibility of operating CACFP (Hamilton et al., 2022). Sponsors provide training/technical assistance to support CACFP implementation and monitor compliance during three on-site visits to FCCHs annually, of which two are unannounced (U.S. Department of Agriculture, 2018).

FCCHs in CACFP must comply with specific nutrition standards, including offering of components from the milk, vegetable, fruit, grain, and meat/meat alternate food groups with meals (U.S. Department of Agriculture, Food and Nutrition Service, 2021). Nationally, ~97,000 FCCHs participate in CACFP, and nearly 550,000 children receive meals/snacks through CACFP at FCCHs (U.S. Department of Agriculture, Food and Nutrition Service, 2022; Food Research and Action Center (FRAC), 2019). CACFP participation is associated with higher-quality nutrition environments at child-care, offering of healthier foods, and enhanced food security in children (Ritchie et al., 2012; Erinosho et al., 2019; Heflin et al., 2015; Korenman et al., 2013; Andreyeva et al., 2018). Despite CACFP's benefits, participation by FCCHs varies widely among states (The Food Research and Action Center (FRAC), 2019), and to date, no studies have explored factors driving state-level differences. Barriers to CACFP participation by FCCHs have been examined in a few studies, but they have limitations (Glantz et al., 2018; Meredith, 2009; Speirs et al., 2020). One study focused on a national sample of CACFP centers and FCCHs, but did not include non-CACFP participants (Glantz et al., 2018). A second study, published in 2009, focused on CACFP and non-CACFP FCCHs in Oregon (Meredith, 2009); but this was a single state, and since 2009, CACFP requirements have changed significantly (e.g., improvements to area-eligibility rules to allow more FCCHs to participate [in 2010], changes to meal patterns so they are consistent with nutrition best practices [2017] (National CACFP Sponsors Association, 2022). A third study, conducted in 2013, focused on urban FCCHs in Illinois (National CACFP Sponsors Association, 2022), excluding rural and non-CACFP FCCHs. A fourth study, conducted in 2016, focused solely on CACFP FCCHs in Oklahoma (Sisson et al., 2021).

Using data from two states (Arizona, New York) with varying CACFP participation levels, this paper describes facilitators, barriers, and potential strategies to promote CACFP participation by FCCHs, based on reports by CACFP stakeholders, sponsors, and providers.

2. Materials and methods

2.1. Study setting and participants

This descriptive study was conducted in Arizona and New York from January-May 2022. Criteria for states selection was similarity in child poverty levels; varying levels of CACFP participation by FCCHs; and convenience of data collection. Although Arizona and New York are similar in having child poverty levels that exceed the national average (The Annie E. Casey Foundation, 2021), they differ with regards to CACFP participation. While New York has seen a 4 % rise in FCCH participation in CACFP over a 20-year period; from 1998 to 2018, Arizona, in contrast, has seen a 52 % decline (Food Research and Action Center (FRAC), 2019). Convenience of data collection was considered; given the study team's existing collaborations with partners at early care and education agencies both states.

Participants in each state included CACFP stakeholders, sponsors, and FCCH providers ("providers" hereon). Stakeholders were defined as state-level representatives of CACFP or other agencies that work with FCCHs to promote child nutrition, whereas sponsors were public/private non-profit organizations that took on administrative responsibilities of operating CACFP for FCCHs (Hamilton et al., 2022). Potential stakeholders were identified from their agency's website or through word of mouth from other stakeholders, while sponsors were identified from databases obtained from the National CACFP Sponsors Association (National CACFP Sponsors Association, 2021) or the respective state

CACFP agencies. Stakeholders and sponsors were recruited by telephone and/or email.

To identify FCCHs, the study team obtained databases of licensed or approved (certified, registered, legally-exempt) homes from each state's early care and education agency, and merged this with a database of CACFP homes (available for New York only) that was obtained from CACFP. Providers were contacted by telephone, screened to verify their CACFP status, and invited to participate in the study, with a goal to recruit a random sample stratified by CACFP versus non-CACFP participation in a 2:1 ratio, to allow the study team capture diverse experiences of CACFP providers. The study team initiated telephone/email contact with eight stakeholders, representatives of 10 sponsor organizations, and 98 providers **(Appendix)**. There were 32 study participants: three stakeholders (1–2 per state), representatives of six sponsor organizations (3 per state), and 23 providers (11–12 per state). The study was approved by the Institutional Review Board at Indiana University Bloomington, and verbal consent was obtained from participants before data collection.

2.2. Data collection

Stakeholders, sponsors, and providers participated in interviews by telephone or video call (Zoom). Semi-structured interview guides were developed for each respondent-type, guided by prior studies of CACFP barriers/facilitators (Glantz et al., 2018; Meredith, 2009; Speirs et al., 2020), a similar study of center-based child-care (Jana et al., 2022), and input from partners at early care and education agencies. The Consolidated Framework for Implementation Research (Damschroder et al., 2009) guided data collection, to identify important contextual factors related to program characteristics, inner setting (e.g., implementation climate, structural characteristics), and outer setting factors (external policy/incentives) that can influence program implementation (support for and participation in CACFP).

Questions and probes about program characteristics assessed how CACFP is administered, enrollment requirements, and reimbursement processes. Inner setting factor questions assessed characteristics specific to participants' organizations, including organizational structure, perception of facilitators and barriers to CACFP participation, prioritization of CACFP uptake by FCCHs, internal resources available to promote CACFP, and efforts to promote CACFP. Outer setting factor questions assessed resources external to participants' organizations that are available to promote CACFP participation by FCCHs. Participants were asked to suggest potential strategies to promote CACFP. Stakeholder and sponsor interviews lasted about 60 min, while provider interviews lasted about 30 min. Participants who were able, without being in conflict with their organization's policy, received a thank you gift card (stakeholders/sponsors: $25; providers: $40).

2.3. Data analysis

Interviews were audio-recorded and transcribed verbatim. Each transcript was reviewed for accuracy and completeness, and imported into ATLAS.ti (version 3.4.5–2021-11, Berlin, Germany), a qualitative software program, to facilitate analysis. Team members (MV, TE, BJ, KL) trained in qualitative analyses reviewed the data and developed broad codes (themes) based on interview guide questions and the study objectives. Separate codebooks were created for stakeholders, sponsors, and providers. Within codes, contents were analyzed using an inductive approach described by Strauss et al., (Strauss and Corbin, 1990) after which they were grouped into emergent themes. Because stakeholder, sponsor, and provider interviews assessed similar topics, and the sample sizes were relatively small, the study team pooled the qualitative data for the final summarization of results and selected quotes that represented each theme; this allowed for the capture of both emergent and anticipated themes. Demographics reported as part of participants' organizational structures were entered into Microsoft Excel (version

2204) and summarized descriptively.

3. Results

3.1. Participants' characteristics

Participants included three stakeholders, representatives of six sponsor organizations, and 23 providers. Sponsors served between 50 and 293 homes, and their representatives who participated in interviews included program directors, CACFP coordinators, and family and community engagement personnel (Table 1). Of the 23 FCCHs, 43 % were rural, and 70 % participated in CACFP. On average, the FCCHs had been in operation for 13 years (range = 1–33), had eight children enrolled (range = 3–17), and all served meals/snacks.

3.2. Facilitators of CACFP participation

Major facilitators of FCCH participation in CACFP centered around three themes related to ease of enrolling in CACFP; helpful supports from sponsors and state-administering agencies; and program benefits (Table 2). When describing enrollment facilitators, sponsors and CACFP providers cited the simple processes for completing both the initial enrollment in CACFP and subsequent annual renewal of enrollment. According to a provider: *"It (enrollment) was not difficult. We are also licensed through the (agency). Everything that we basically needed for the food program was already in place."*

Helpful supports that facilitated initial enrollment in CACFP included outreach from sponsors/stakeholders to promote CACFP awareness, and technical assistance from sponsors and stakeholder organizations. When describing factors that made it easier for enrolled FCCHs to continue to participate in CACFP, several sponsors and providers cited technical assistance/support received from sponsors who

Table 1

Demographic Characteristics of Participating Sponsoring Organizations and Family Child Care Home Providers.

Characteristics of participating sponsoring organizations	(n = 7 representatives of 6 sponsor organizations)
Number of homes served by sponsor *(mean, s. d.)*	158.6 (108.3)
[1]Role of representatives of sponsoring organization who participated that participated in interviews *(n, %)*	
Director	4 (57)
CACFP coordinator	1 (14)
Provider services supervisor	1 (14)
Family and community engagement personnel	1 (14)
Total years in which the representative had been employed at the sponsoring organization *(mean, s.d.)*	18.8 (10.7)
Characteristics of participating family child care homes (FCCHs)	(n = 23 FCCHs)
Location of home *(n, %)*	
Arizona	12 (52)
New York	11 (48)
Rural versus urban	
Rural	10 (43)
Urban	13 (57)
Total years of operation *(mean, s.d.)*	13.4 (9.8)
Total number of children enrolled *(mean, s.d.)*	8.1 (4.2)
Participation in CACFP *(n, %)*	
Yes	16 (70)
No	7 (30)
Of 16 CACFP FCCHs, total years of participating in CACFP *(mean, s.d.)*	8.9 (7.1)

Abbreviations: CACFP represents Child and Adult Care Food Program; FCCH represents family child care homes; s.d., represents standard deviation.

[1] In total, seven persons representing six sponsor organizations were interviewed. One of the sponsor organizations had two representatives participating in the interview together.

Table 2

Facilitators of Family Child Care Home Participation in the Child and Adult Care Food Program.

Main Theme	Sub-Theme	Illustrative Quotes
Easy process to enroll in CACFP	Simple processes to enroll in CACFP and complete annual re-enrollment	"Honestly, it was really easy because I was already licensed with [state agency]. [State agency] already—they've got their bar really high, so it was pretty simple actually going through that enrollment process because it was already done." **(CACFP Provider, AZ)** "When I did it, years ago, they (sponsor) brought me all the paperwork. I remember sitting there doing the paperwork, but it was pretty in-home-wise. It was pretty simple. The sponsors pretty much take care of everything." **(CACFP Provider, NY)**
Helpful supports are provided by sponsors and stakeholders	Incentives from state agencies	"One thing they tried to do in [refers to the state], through licensing, was they tried to do this [Quality Rating and Improvement Systems, QRIS] program. They tried to say that participation in CACFP would give them a higher rating." **(Stakeholder, NY)** "Expansion funds are available. But whenever an existing sponsor says they wanna go ahead and expand, they have to go ahead and show us the areas they want to expand in… it can't be an area that is highly saturated right now." **(Stakeholder, AZ)** "We do actually have expansion funds available, though, to sponsoring organizations to expand into underserved areas and to basically bring on more providers." **(Stakeholder, NY)**
	Outreach to providers by stakeholders and sponsors	"Lately, I notice that the [state agency]—when they go to get the license through [state agency], [state agency] gave them a list of the different sponsors that we offer in [the state]. Since we're located in [county], most of them reach out to us." **(Sponsor, AZ)** "We, actually, here in [referring to the state], family and group family child-care providers that want to be licensed or registered with the state have to take a health and safety training, and we host that here. Typically, we go into that health and safety training at a break time or a lunch time, and we talk about CACFP, the benefits and so forth. We also do recruiting throughout the year, outreach events for providers." **(Sponsor, NY)**
	Technical assistance and support from sponsors	"I think it's just our accessibility. We answer the phone, and we're able to provide that support and answer any questions that they may have… We really do try to

(continued on next page)

Table 2 (*continued*)

Main Theme	Sub-Theme	Illustrative Quotes
		be very attentive to what the provider needs." **(Sponsor, NY)**
		"I think it has a lot to do with the people that work with the different sponsoring agencies. If you have someone that is friendly, willing to answer your questions, and guide you through things, then more providers would be open to joining the program… It has a lot to do with who's in charge of providing resources and training." **(CACFP Provider, AZ)**
	Helpful computer software programs from sponsors	"A lot of the sponsoring organizations do use a computer program called KidKare, What's nice about that is that they can do their records—they're meant to keep track of their—both their menus and their attendance online… Then, they send that off to the sponsoring organization, and it's all electronic. … It is a very savvy program. It does eliminate some of the paperwork that providers have to keep." **(Stakeholder, NY)**
		"The program itself that they provided to do, the Minute Menu, it's alright. The idea of it is great because you put in your grain, your vegetable, your fruit, your meat, your meat alternative, your dairy—you put all that in, and the program is set to only allow you to submit it if you've met all their expectations." **(CACFP Provider, AZ)**
	Monitoring visits from sponsors that help to catch and remedy errors	"It helps when they—the day they're [i.e., sponsor] coming—because if I have something, like I forget or I don't do nothing, they help me. "Hey, don't forget to do this." That one is because we do this job every day, and of course, we forget something. When she's coming it's easy because if I forget something, she just remind me." **(CACFP Provider, AZ)**
		"They (referring to sponsors) come up to your house every-three or four months, unannounced, and then, if you have questions about food servings or portion control, or any of those things, then you can ask them." **(CACFP Provider, NY)**
CACFP confers several benefits	CACFP benefits to providers, families, and children	"Well, not only do they promote healthy eating habits, which I feel like programs should do that anyway, without the program, but it's an incentive like, oh, if you serve your children healthy foods, then you can get reimbursement for the money

Table 2 (*continued*)

Main Theme	Sub-Theme	Illustrative Quotes
		that is coming out of pocket to feed the children." **(CACFP Provider, NY)**
		"Well, that way I'm providing the children with nutritional food, and it (CACFP) helps me to provide that for the children, and it keeps me up to date on what going and what's important for the children and everything." **(CACFPP, AZ)**

Abbreviations: CACFP represents Child and Adult Care Food Program; FCCH represents family child care home; AZ represents Arizona; NY represents New York.

typically served as a resource and advocate for providers, provided trainings about CACFP and child nutrition best practices, assisted providers with navigating challenges, and connected providers with their peers to establish support systems and share ideas. Additional supports included computer software programs (KidKare, Minute Menu) offered by some sponsors that helped providers comply with meal patterns, streamlined reimbursement paperwork processes, and eliminated the need to process reimbursement claims on paper and by postal mail. Monitoring visits by sponsors were described as helpful for catching and addressing provider errors. A provider explained: *"It helps when [the sponsor]—the day they're coming… if I have something like I forget or don't do nothing, they help me… When she's coming it's easy, because if I forget something, she just reminds me."* Few sponsors cited positive aspects of the virtual monitoring allowed during the COVID-19 pandemic (e.g., less intrusive, reduces travel time), while other cited disadvantages (perceived it made it harder to review paperwork and provider practices, challenges with internet/technology). Stakeholders mentioned incentives from state-administering agencies as helping to promote CACFP, including expansion funds available to sponsors in both states to conduct program outreach, and inclusion of CACFP in Quality Rating and Improvement Systems (QRIS) for New York FCCHs.

Other facilitators centered around benefits proffered by CACFP. Participants described CACFP as helping providers cover food costs, introduce new foods, and serve healthy foods; eliminating costs that parents would incur if they sent in meals for their child; and assuring parents that children would receive healthy meals while in care, with oversight from sponsors and state agencies. A provider shared: *"It gives us support as providers. I believe it also gives the parents peace of mind to know that we are aware of what the needs of the children are when it comes to their food…. that they know that we are being monitored and that they have the inspections a few times a year.".*

3.3. Barriers to CACFP participation

Key barriers to FCCH participation in CACFP centered around four themes related to criteria for CACFP eligibility; enrollment requirements; sponsor roles and requirements; and reimbursement challenges (Table 3). Barriers related to CACFP eligibility criteria focused on the tiering system and nationwide decline in FCCHs. Specifically, stakeholders and sponsors cited challenges with enrolling FCCHs that qualified for Tier 2, which provides lower reimbursement than Tier 1. A CACFP provider said: *"I was on the program. I used to get the higher-tier reimbursement, but when they changed things and I didn't qualify for the higher tier and then became lower tier, I said to myself, 'this is not worth the trouble."* Added on to this, was the general decline in FCCHs nationwide that made fewer providers eligible for CACFP, which sponsors described as being due to an aging population of providers, high-costs of obtaining licensure and required FCCH inspection approvals in one of the two states targeted in this study, parental preference for enrolling children in formal center-based child-care once children attained preschool age,

Table 3
Barriers to Family Child Care Home Participation in the Child and Adult Care Food Program.

Main Theme	Sub-Theme	Illustrative Quotes
Barriers associated with CACFP eligibility	Tiering system makes enrollment of Tier 2 homes difficult	"As far as tiering goes, I think sponsoring organizations have a hard time bringing on providers that are in the lower tier levels because the reimbursement at the Tier 2 level is so much lower than at the Tier 1 level." **(Stakeholder, AZ)** "When we present the program to people, we try to present it as, "You can earn up to this amount of tax-free income." It all depends on your enrollment. If, especially at times that enrollment dips, people don't see the purpose of participating." **(Sponsor, NY)**
	There is a general decline in FCCHs that is impacting availability of CACFP eligible homes	"In [referring to state] altogether, the total number of child-care homes has decreased in the past five years significantly. It was long before the pandemic that this was going, so I don't know whether it's the opening of more daycare centers and parents being more comfortable sending the kids to a daycare center versus an in-home care. There's more security in number they feel, I think." **(Sponsor, NY)** "They (providers) can make more money on regular jobs. I mean, it's just less hassle. Nowadays, there's so many in-home jobs that you can have your kids at home. We've had a few quit because of that, just 'cause they can do a virtual job and have their kids, and work around their kids; school schedules and that sorta thing. They typically only go off for those reasons or they're older and they're just done watching kids." **(Sponsor, AZ)**
Barriers associated with enrollment	Difficulty in complying with meal patterns and perception that it is easier for parents to provide meals	"Well, they change them (referring to meal patterns) a lot. So, it gets difficult. You know, you have to have a whole grain at least once a day. You gotta be—juice, you can only have once a day… To become a provider today, and to try to figure all of this out with everything else that is so new, I wouldn't want be doing it." **(CACFP Provider, NY)** "Also, some programs opt to have parents provide the meals. They just don't'wanna get involved with the allergy, food preference, meal preparation portion of the program. It is easier for them to have the parents provide

Table 3 (*continued*)

Main Theme	Sub-Theme	Illustrative Quotes
		the food." **(Sponsor, NY)**
	Paperwork to enroll in CACFP is consuming	"The paperwork's always been the same since I've been here. It hasn't really changed—hasn't increased. I know that the [refers to a national organization], they're trying to do reduction of the paperwork so that there's not quite so much for them. A lotta providers are afraid of that, so that keeps them from joining." **(Sponsor, NY)** [referring to enrollment process] "With the exception of just having to fill out lots of paperwork and then the training, it wasn't super difficult. All their paperwork is ridiculous." **(CACFP Provider, NY)**
Barriers related to sponsor roles	Lack of, or limited access to sponsors in rural areas	"Of course, because [refers to state] is a huge state, there are pockets of the state where sponsoring organizations do not operate in. Probably most are some of the rural areas, definitely up on the reservations…Probably 10, 12 years ago, I would say that we did have some sponsoring organization that kind of participated in those areas—let's just say they operated in those areas. But participation was so low—as far as the provider participation—that they pulled out of those areas, because it wasn't cost effective for them to keep operating and trying to go up there… which left a void as far as having somebody to go to ahead and just operate for those providers up there." **(Stakeholder, AZ)**
	Discomfort with monitoring visits	"I guess it's the monitor visits and the unannounced and stuff like that—some of them aren't happy with that. **(Sponsor, NY)** "I've been doing daycare for 20 years and I tried the CACFP food program when I first become a provider. The reasons why I stopped doing the CACFP is because they would come unannounced." **(Non-CACFP Provider, NY)**
	Difficulty with using computer software programs provided by sponsors	"Everything used to go through (name of software program), and they switched that now to a new program, and I don't like it when they do that. So, you're in the program, and you get a system going, and then they switch and that makes it difficult for people. I'm 51 years old, so I didn't grow up in the computer world. So, it

Table 3 (*continued*)

Main Theme	Sub-Theme	Illustrative Quotes
		takes me a little longer to learn new systems when they do that to us." **(CACFP Provider, NY)**
		"I think it (referring to software program) makes more work for me, because I don't have to be doing all the extra stuff, or even taking the time right now. My kids are sleeping so, whenever I do the stuff, I do it during this time." **(CACFP Provider, AZ)**
	State-specific reimbursement standards	"It used to be allowed in [refers to the state], you could have up to six kids in your home. You could be reimbursed for up to six kids, even if they weren't your own children. The reimbursement didn't count as compensation. I would say four or five years ago, they decided that if they get reimbursed for the food for their child, that's compensation. We've all disagreed that if they're taking care of a grandkid that they're not getting paid for, that is far from outside of the home, that that child is a non-comp child. The state says that if they get reimbursed for that child, that that child then becomes for compensation." **(Sponsor, AZ)**
Reimbursement challenges	Low reimbursement creates challenges for providers and does not cover food costs.	"Another barrier that I notice that at least two providers closed last year because of it, it was the reimbursement rate. Right now, we're using the waiver where they all meet the tier one rates, but still, it's low for them." **(Sponsor, AZ)**
		"From a provider standpoint, the sponsors need to understand that the providers are not making money. When you ask us to do extra work that we're not getting paid for, it doesn't make any sense, it doesn't." **(Non-CACFP Provider, AZ)**
Penalties for regulatory non-compliance	Mistakes on paperwork or meal patterns can result in penalties	"They've denied a meal for me, a lot. Because I've accidentally not clicked the whole wheat, or I've accidentally not clicked water. If you come to my program, my kids have access to their water bottles all day long, so to me, that's really annoying… Yeah, they deny the whole meal for the day, and it loses money." **(CACFP Provider, NY)**
		"If you can't keep your paperwork, if you can't maintain it for five years, if you don't know how to organize yourself, then everything goes wrong. Then it's a write up for this and a write up for that. We do more

Table 3 (*continued*)

Main Theme	Sub-Theme	Illustrative Quotes
		write ups for paperwork than we do write ups for doing something. If they don't have copies of their menus from the previous weeks, even if they've mailed it to us already, they'll get written up." **(Sponsor, AZ)**

Abbreviations: CACFP represents Child and Adult Care Food Program; FCCH represents family child care home; AZ represents Arizona; NY represents New York.

and the pandemic (Table 4).

Barriers with enrollment requirements focused on meal patterns and paperwork to enroll in CACFP. Sponsors and providers discussed concern among some providers regarding difficulties in complying with CACFP meal patterns and the perception, especially among non-CACFP providers, that it was easier to have parents provide their child's meals. Another barrier some participants cited was the perception, especially among non-CACFP providers, that the paperwork to enroll in CACFP would be time consuming, given the limited resources and staff available at FCCHs, and time constraints amid other priorities competing for providers' attention. A non-CACFP provider described: *"At least three times since 2009, I have attempted to contact them to get in the program, and I have just never—they've sent me packets and they're like "fill out this packet". It's a big ol' manila envelope. It's like, ugh! I don't have time for you right now."*

Barriers related to sponsor roles and requirements included providers' challenges with accessing sponsors, monitoring visits, and computer software programs provided by sponsors. A stakeholder (Arizona) described a general lack of sponsors in rural areas as limiting participation by rural providers. Participants explained that for some CACFP and non-CACFP providers, monitoring visits by sponsors, especially unannounced visits, posed a concern. A provider who had previously participated in CACFP shared: *I've been doing daycare for 20 years and I tried the CACFP food program years ago… I stopped doing the program because they, like I said, they would come in unannounced… they acted like my (licensing agency) sometimes, how they came in.*" While most providers shared how computer software programs offered by sponsors helped with meal pattern compliance and filing of reimbursement claims, many providers described there being a learning curve in getting started, with older providers who were less savvy with technology describing difficulties with using the software programs.

Reimbursement challenges centered on low reimbursement rates and non-compliance penalties. Sponsors and providers described reimbursement rates as low and inadequate, especially with current rising food costs. Adding to this challenge, individual states could further restrict reimbursement, as is the case in one of the two states in this study, where providers are only allowed to claim reimbursement for non-relative children in their care. Participants shared providers' concerns regarding penalties levied for non-compliance with CACFP requirements, especially unintentional errors, that could result in the disallowance of reimbursement for meals served. A provider shared: *They (sponsor) go through and they do an error report, and in the error report, they'll even put at the bottom, you were penalized a meal, or two, or three, or however many they feel because you made a mistake. And I'm like "oh" I'm like "That is not fair".*"

3.4. Potential strategies to increase FCCH participation in CACFP

Participants offered potential strategies to increase FCCH participation in CACFP in four thematic areas, focusing on provision of CACFP education to providers, financial incentives to providers and sponsors, resources to sponsors, and higher reimbursement.

Table 4

Strategies Recommended by Stakeholders, Sponsors, and Providers to Increase Family Child Care Home Participation in the Child and Adult Care Food Program.

Recommendations to Increase FCCH Participation in CACFP	Illustrative Quotes
Educate providers to eliminate the perception of the cumbersome nature of the paperwork to enroll in CACFP	"I think an easier application, instead of being given a packet that has like 20 papers in it, all of the information that they offer, and all of this information that I have to go through." **(Non-CACFP Provider, AZ)**
Enhance outreach efforts to promote CACFP awareness	"I think if more people understood the program, maybe they would want to sign up for it and participate in it, or if they really understood how simple it is… I feel like if maybe somebody sat down with these people that aren't on the program and just showed them and explained to them that it's real simple, that maybe more people would get on to the program and talk about it." **(CACFP Provider, NY)**
	"I think if CACFP worked with the licensing agencies, whether that's alternatively approved or whether that's [refers to multiple state agencies] or whoever, if they worked to promote their program with those agencies, then they would get more providers that would be, not just aware of the program, but have more resources on where to find information to participate." **(Non-CACFP Provider, AZ)**
	"Another thing would be that we can advertise more, the program. Have the fundings to advertise the programs'cause, a lotta people, they don't know about it and, I guess, just encourage providers to continue. Even though, if they have one kid, just one kid is gonna make a difference on their—one meal is gonna make a difference on their life." **(Sponsor AZ)**
Increase presence of sponsors in rural and underserved areas	"If I had something to put at the top of my wish list, then I would say, to get more sponsors to increase their areas of participation to hopefully we can get some more of those homes that are operating in the rural areas, reservations." **(Stakeholder, AZ)**
Increase resources (e.g., funding, trainings) to support providers and sponsors	"I think if we could get enough funding or to pay for people's initial startup that could probably encourage people to begin 'cause there's a lot times where they have a hard time coming up with $200 to get started on the program, and we don't have enough funding of our own in order to do that for everybody." **(Sponsor, AZ)**
	"But training for sponsors has been little or none over the years. In almost 16 years, I think I've been to three trainings. One was for the new sponsors. I went to that when I first started. I think I've been to two other ones since them. They haven't really had any trainings. [Interviewer: That's something you think is needed?] Well, it'd be nice, yeah. It would be nice." **(Sponsor, NY)**
Extend Tier 1 level of reimbursement to Tier 2 providers as was done during the	"Reimbursement rates tend to go up a very small amount, so it's not really a big selling point. There is the waiver

Table 4 (*continued*)

Recommendations to Increase FCCH Participation in CACFP	Illustrative Quotes
COVID-19 pandemic and increase reimbursement rate for both Tiers	(referring to waivers put in place by USDA during the COVID-19 pandemic) in place right now for everybody to get the Tier one reimbursement rate, which I do think is more appealing for our providers in tier two areas. The majority of our sponsorship is in Tier one areas, but there are areas of [the County] that are tier two. I think it is more of an incentive to receive the Tier one reimbursement rate. That does make a difference." **(Sponsor, NY)**
	"I hope that with all the prices that are going up right now, I hope that the government agencies that overlook these programs will consider the fact that they need to increase the reimbursements." **(CACFP Provider, NY)**

Abbreviations: CACFP represents Child and Adult Care Food Program; FCCH represents family child care home; AZ represents Arizona; NY represents New York.

3.4.1. Education

Participants suggested educating providers about CACFP paperwork requirements to eliminate perceptions that the paperwork to enroll would be cumbersome. They discussed the need to increase outreach to promote CACFP awareness, which could be achieved by using state agencies responsible for licensing or approving FCCHs to disseminate CACFP information to new providers and inform them about its potential benefits, provide FCCHs with specific referrals to sponsoring organizations in their geographic location, and share information about new FCCHs with sponsoring organizations so that they can also conduct direct outreach. Participants also talked about expanding outreach to promote CACFP awareness among legally-exempt and alternately-approved providers who typically do not go through licensure and, as such, may miss out on receiving information about CACFP.

3.4.2. Incentivization

A stakeholder cited the need to increase CACFP's reach in rural areas, either by incentivizing existing sponsors to expand coverage to such communities, or supporting the establishment of new sponsoring organizations in rural areas. The need to provide funding to supplement start-up costs for FCCHs and fees for obtaining licensure and home health/safety inspection approvals was recommended. While licensed and approved (certified/registered) FCCHs are required to obtain health/safety inspection approvals regardless of participation in CACFP, for legally-exempt and alternately approved homes, this is an added expense that providers must take on if they choose to enroll in CACFP.

3.4.3. Resource provision

Sponsors highlighted the need to allocate more funding to support their work, which could be especially challenging for smaller sponsoring organizations that generate lower revenue from administering CACFP to fewer FCCHs. Sponsors described that they needed more opportunities to interact with and receive high-quality trainings about child nutrition and state and federal CACFP requirements from state CACFP agencies.

3.4.4. Reimbursement increase

The need to increase reimbursement rates was discussed, particularly for would-be Tier 2 providers who would qualify for lower reimbursement rates. During the pandemic, Tier 1 and Tier 2 FCCHs received reimbursement at Tier 1 rate, and participants recommended an extension of this practice beyond the pandemic. Participants also recommended a general increase in reimbursement rates regardless of Tier

to offset rising food costs.

4. Discussion

This study assessed facilitators, barriers, and potential strategies to promote CACFP participation by FCCHs. Many facilitators reported by participants were consistent with other studies (Sisson et al., 2021; Glantz et al., 2018; Meredith, 2009; Speirs et al., 2020). Facilitators included the simple processes for initially enrolling in CACFP and completing the annual re-enrollment, incentives from state-administering agencies, and outreach from stakeholders/sponsors. Other facilitators included technical assistance/support and computer software programs from sponsors that helped providers comply with meal patterns and process reimbursement claims, and monitoring visits from sponsors that helped providers catch and address errors. Participants highlighted several benefits of CACFP that are consistent with other studies (Meredith, 2009; Speirs et al., 2020). For example, aspects of CACFP that Oregon providers found valuable, were the focus on child nutrition that provided access to nutrition education, allowed providers to serve nutritious meals, and kept providers' accountable; reimbursement, which helped to cover food costs, kept child-care tuition low, and allowed providers to serve a variety of foods; and sponsor supports that helped providers understand and navigate CACFP (Meredith, 2009). Similar benefits were reported in a study of urban CACFP providers in Illinois and Oklahoma (Speirs et al., 2020; Sisson et al., 2021).

Barriers included limited access to sponsors in rural areas, low reimbursement rates, and perceptions that CACFP paperwork would be cumbersome. Participants discussed concerns with meal patterns, unannounced monitoring visits, software programs from sponsors, and penalties for non-compliance with CACFP requirements. Notably, some of these barriers (software, monitoring visits) were reported as facilitators. Other studies have reported similar barriers to CACFP uptake (Sisson et al., 2021; Glantz et al., 2018; Meredith, 2009; Speirs et al., 2020). Meredith et al. found that commonly cited barriers to participation were providers' perception that too much paperwork would be involved, being informed by others that CACFP was complicated, and a general lack of interest in participating (Meredith, 2009). Reasons for leaving included too much paperwork, low reimbursement, and a dislike for unannounced monitoring visits (Meredith, 2009).

Strategies recommended by participants to promote CACFP uptake included, educating providers about CACFP, improving outreach to promote awareness, enhancing sponsors' presence in rural areas, increasing resources available to sponsors, increasing reimbursement rates, and making permanent the extension of Tier 1 reimbursement rates to Tier 2 providers that was put in place during the pandemic. Adding to this, the authors recommend that early care and education agencies address factors contributing to the nationwide decline in FCCHs. Providing incentives to motivate young adults to operate FCCHs, establishing funding to support the start-up and sustenance of FCCHs, and creating programs to train providers about how to operate thriving businesses could help. Incorporating CACFP into Quality Rating and Improvement Systems might motivate CACFP uptake. Incorporating CACFP meal patterns into licensing standards, which is the case in some states (e.g., Arizona) (Arizona Department of Health Services, 2011), might help. The authors recommend policy changes to address negative effects of tiering. Tier 2 homes have decreased significantly since 1997 when tiering began (Glantz et al., 2018) and lower reimbursement is a contributor (Glantz et al., 2018; U.S. Department of Agriculture, Economic Research Service, 2002). While COVID-19 waivers that allowed Tier 2 to receive Tier 1 rates have not been made permanent, their extension through June 2023 will help (National CACFP Sponsors Association, 2022; Register, 2022).

This study builds on existing research, using qualitative methods to assess CACFP barriers/facilitators across two states. A limitation is that the findings do not highlight reasons for disparities in CACFP participation and may not be generalizable across states. A criterion for selecting the two states (Arizona, New York) was the existence of varying levels of CACFP participation by FCCHs, which the study team determined using the percent change in CACFP participation by FCCHs across a 20-year period (1998–2018) (Food Research and Action Center (FRAC), 2019). Because existing state-level data only provide estimates of licensed FCCHs (i.e., do not track licensing-exempt FCCHs), (Child Care Aware of America, 2022; Child Care Aware of America, 2022) the study team was unable to provide additional context about the actual proportion of FCCHs (i.e., licensed, and licensing-exempt homes) in Arizona or New York that participate in CACFP to determine whether either state has a high versus low FCCH participation in CACFP. Interviews were conducted in English. An additional limitation was that thematic analysis by subgroups was not possible because of small sample sizes. Nevertheless, the inclusion of stakeholders, sponsors, and providers' perspectives is a strength. The study included an almost equal mix of urban and rural FCCHs (13 versus 10), as determined using Rural Urban Commuting Area codes (WWAMI Rural Health Research Center, 2021). Also, a strength was that the perspectives of CACFP and non-CACFP providers (16 versus 7), and licensed versus approved providers (10 versus 13) were captured.

5. Conclusions

Food provided in FCCHs can impact child development (Jackson et al., 2020; Benjamin-Neelon, 2018; Burstein and Layzer, 2007), and participation in CACFP promotes food security (Ritchie et al., 2012; Heflin et al., 2015; Korenman et al., 2013; Andreyeva et al., 2018). Efforts to address state-level disparities in CACFP participation are needed, and this study provides some insight into potential policy (tiering elimination, higher reimbursement) and systems changes (expanding outreach, providing nutrition education to sponsors). Future studies should include larger samples, target multiple states, and track the reasons for CACFP drop-out by FCCHs.

CRediT authorship contribution statement

Temitope Erinosho: Conceptualization, Funding acquisition, Methodology, Project administration, Supervision, Writing - original draft, Writing - review & editing. **Bethany Jana:** Concetualization, Methodology, Data curation, Formal analysis, Project administration, Writing - review & editing. **Kaitlyn Loefstedt:** Methodology, Data curation, Formal analysis, Writing - review & editing. **Maihan Vu:** Methodology, Writing - review & editing. **Dianne Ward:** Conceptualization, Methodology, Writing - review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors will consider data requests on a case by case basis

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.pmedr.2022.102022.

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