ABSTRACT

Introduction
The California Department of Food and Agriculture (CDFA) Healthy Stores Refrigeration Grant Program provides funding to small retail outlets to purchase energy-efficient refrigeration units to be used for stocking California (CA)-grown fresh produce, nuts, and minimally processed foods. This study aimed to capture the experiences of community-based organization grantees of the Healthy Stores Refrigeration Grant program and inform opportunities for program improvement.

Methods
NPI conducted six 45-minute stakeholder interviews with representatives from community-based organizations between February 21 - March 13, 2020. Trained researchers coded and analyzed the data to identify key findings.

Results
Four key findings were identified and developed. First, participants expressed great appreciation for the grant program, its fulfillment of a previously unmet need, and its smooth administration process. Second, participants found the requirement of stocking exclusively CA-grown produce to be the most frequently reported challenge for stores. Furthermore, stores faced challenges procuring produce generally. Finally, while organizations provided significant assistance to stores with refrigeration selection, they were limited by a lack of familiarity with the refrigeration equipment and technical assistance budgets. Five recommendations were also identified. Recommendations for CDFA included increasing flexibility for produce stocking, clarifying reporting processes, increasing budgets for technical assistance, providing more assistance with fridge selection, and stimulating customer demand through merchandising and marketing support.

Conclusion
The CDFA Healthy Stores Refrigeration Grant program provides necessary equipment for small stores to offer produce. Challenges around inadequate technical assistance and lack of knowledge regarding sourcing and merchandising produce remain. Participants’ suggestions can help CDFA and other programs support healthy retail environments.
INTRODUCTION

The Healthy Stores Refrigeration Grant Program of the California Department of Food and Agriculture (CDFA) aims to increase the availability of fresh fruits and vegetables in neighborhood food retail environments in areas of the state that lack adequate access to fresh produce. The program provides funding to small retail outlets to purchase energy-efficient refrigeration units to be used for stocking California (CA)-grown fresh produce, nuts, and minimally processed foods. Awardees included both individual stores and community-based organizations, which primarily consisted of nonprofits, cities, and counties that applied for the grant on behalf of multiple stores. This study aimed to capture the experiences of community-based organization grantees with the Healthy Stores Refrigeration Grant program in order to understand ways the program is working well and to identify opportunities for program improvement.

The objective of this study was to answer the following research questions:

1. What program benefits and challenges were experienced by organizations and their grantees during the early stages of the grant program?
2. What opportunities for program improvement were voiced by organization leaders?
3. What gaps do organizations report corner store owners facing in implementing strategies to increase access to CA-grown fruits, vegetables, and nuts, and how can programs like the refrigeration grant support closing those gaps?

METHODS

The Nutrition Policy Institute (NPI) conducted six 45-minute stakeholder interviews with representatives from community-based organizations from February 21 - March 13, 2020. Participants were selected using convenience sampling, taking into account diversity in geography, urbanicity and organization type (e.g. health department, non-profit). A semi-structured interview guide was used to capture respondents’ impressions of the healthy retail program, experiences working with corner stores, and challenges and opportunities presented by the grant program (Appendix A). Interviews were conducted in English by a single researcher and were audio-recorded on Zoom. Two trained researchers coded and analyzed data for findings.

RESULTS

Key findings

1. Grantees appreciate the grant program and the smooth process through which it is administered.

All organizations reported that the ability for stores to access a new refrigeration unit fulfilled a previously unmet need. Many highlighted that existing funding sources, such as
SNAP-Ed, limit how organizations can help improve store environments. As one organization said:

*With the CDFA grant we’re able to supplement the healthy retail program that SNAP-Ed funded, with infrastructure support, such as refrigerators, that we’re not able to provide with SNAP-Ed dollars.*

While organizations previously could advise stores on how to stock healthier items, they were otherwise unable to provide the equipment to facilitate stores’ ability to do so. This grant supplements much of their existing work to improve the retail environment.

Grantees also appreciated the program’s smooth application and reimbursement processes. The straightforward grant application facilitated program accessibility and CDFA was reported to be responsive to questions and to be administratively efficient with reimbursements. As one grantee said:

*The questions on the application were perfectly logical. It was a reasonable ask for a grant application… I was grateful with how straightforward the questions were.*

Another said:

*The application process, I thought it was pretty straightforward. I did appreciate that it was more streamlined, that it wasn’t… a 20-page proposal, it was very much accomplishable. I applied on behalf of 2 of our storeowners, but even looking at the application that storeowners themselves could complete, it didn’t seem like it was too burdensome… I found the office of Farm to Fork very approachable. I would email and get a quick response, and that was awesome.*

Another appreciated the design of the program, saying:

*I really appreciate that we have funding to purchase refrigeration, it is not a lease-to-own arrangement, which is how other… programs arrange their funding.*

Other interviewees appreciated how CDFA allowed organizations to conduct the refrigerator purchase and reimbursement process for the stores:

*I also do appreciate … that they allowed for nonprofits to be able to purchase on behalf of the stores which certainly our storeowners wouldn't have sought out or even attempted to fill out this grant otherwise.*

2. **Stocking only CA-grown produce is challenging for stores and they are confused by the reporting process.**
The requirement to stock exclusively CA-grown produce was the most frequently reported deterrent to program participation and a key challenge for participating stores. While interviewees recognized and appreciated the importance of supporting CA farmers, there were a variety of barriers that made meeting this standard difficult, including lack of information on the source of a product; lack of connections to reliable sources for purchasing CA-grown produce; and inaccessibility of affordable, CA-grown produce in the off-season, which is especially relevant for stores serving low-income populations. One organization described the CA-grown requirement as especially burdensome for small stores and recommended more flexibility:

Interviewee 1: *When it comes to restricting to CA-grown produce, it makes it a little extra difficult for a smaller store that maybe can’t purchase a quantity of produce to make it affordable, not only for her but also for her customers... A challenge of finding distributors that can provide... maybe a whole, round service with just CA-grown produce...*

Interviewee 2: *I’m not sure if that could be just liberalized... to a certain percentage... to ensure that there is still promotion that it is still CA-grown without taking up the entirety of the display.*

Interviewees mentioned that the CA-grown requirement directly affected program participation.

As one said:

*I know some stores did not pursue this because they had serious doubts about being able to source CA-grown products.*

Another said:

*One of the storeowners we work with, when I presented the grant to him, he decided to not to apply because he said, ‘That’s ridiculous, I am serving a low-income area and when I can buy an avocado from Mexico at a dollar versus a CA avocado at 3 or 4 dollars, it is a no brainer that I am going to buy the Mexican avocados.’ So, he did not apply...*

Interviewees also expressed confusion about how to monitor and report store compliance with the standard. Organizations intended their stores to be compliant with the rule but were unclear about what information they should be asking the stores to collect (e.g., receipts, photos), whether there would be visits from CDFA, and for how long they should collect said information.

*... Monitoring it, making sure it was CA-grown... I think that was more of a challenge. How do you monitor [to] make sure what they are purchasing is CA-grown?*
Another said:

... I know that is something that has come up, like ‘Well, what if we can’t source everything from CA, are they going to take our refrigeration away?’ So I think having maybe having clear parameters around that too…and how that is going to be monitored, if it’s going to be monitored?...

3. Produce procurement generally is challenging for small stores.

Organizations reported that stores faced produce procurement challenges for all produce items—not just CA-grown. Distributors and wholesalers offer lower prices than retail grocery stores but require minimum order sizes beyond what participating small stores are able to sell. Similarly, delivery services require large minimum orders or charge higher delivery rates for small orders. These conditions mean that many stores choose to source produce from retail grocery stores. Thus, they struggle to offer competitive produce prices. Further, finding time to purchase fresh produce can be challenging for store owners given that many are small operations with limited staff. Often, storeowners and/or staff have to visit larger grocery stores during off hours (when their store is closed), or even have to close the store temporarily, to purchase products at the retail price.

As one organization said:

Interview 1: There is no delivery system in place. Every small corner store owner who wants to sell produce has to go procure it on their own, every week or twice a week, they have to go to a Jetro or Costco... they have to go somewhere to buy it themselves in the right quantities they think they can sell and then resell at their stores... which is a major challenge for them... because they don’t want to be stuck with the loss... There are no produce delivery companies, at all, none, that will deliver to a small store for the quantities they want to sell...

Interviewee 2: Or if they do, it’s really exorbitantly expensive and they can’t afford it...

Another said:

The purchasing takes a while for them to adapt to the process of having to go through a wholesale market. The volume that the stores are having, because they are smaller stores, it is more challenging to get a delivery model. A big wholesale market that is delivering to Safeway, for example, and has a big truck full of produce will likely not want to deliver to a small corner store that has less than a quarter of the volume than a big box grocery store would have.

4. Identifying, ordering, and installing appropriate refrigeration units is complicated and time consuming.
Interviewees reported spending significant amounts of time assisting stores with researching refrigeration units, ordering, and delivery. Stores new to selling fruits and vegetables needed even more support — from sourcing and storing produce to developing marketing and selling processes. Altogether, organizations reported having to spend time beyond the amount budgeted for technical assistance.

Interviewees reported using various strategies to identify and procure refrigeration units. For example, one organization worked closely with a refrigeration manufacturer representative who helped select appropriate units based on space considerations, cost of installation, and energy savings. Another organization worked with a refrigeration expert to create a tip sheet on how to select refrigerators (Appendix B).

As one interviewee said:

*I think one area that would have been helpful is the selecting the refrigeration. I think, you know, the Energy Star database was helpful, but I think just having more recommendations or parameters from the Department of Food and Agriculture would have been helpful... instead of just pointing us to a database, maybe pointing us to someone from Huffman... that those contacts would have been established and there was a point person versus us having to do all that legwork independently.*

Another organization discussed the challenges this way:

*It’s a lot of work. Nobody at all on our team nor any of our partners are refrigerator experts ... having to go through and learn refrigerants and energy efficient and all of that. We learned quite a bit. And I wish there was a little bit more technical support on that end, but we plugged through and did it... One of the bumps in the road was the stringency with which CDFA holds within what it’s in the contract... Refrigeration companies upgrade their models, so what we wrote into the contract in August might be a unit that is no longer for sale in January...*

Multiple interviewees reported unexpected challenges with refrigerator delivery. Some delivery companies did not include bringing the refrigerator into the store in their delivery service, which was not clear until the time of delivery and presented complications. Companies also did not always provide removal of old refrigerators, which presented challenges for storeowners who were replacing old units. Often there was a separate cost associated with removing old units to be recycled, funds that were not readily available to stores and were not included in the grant program budgets. As one interviewee said:

*We had a few hiccups, because the units are quite large... We’ve been troubleshooting ways to get the refrigerators off the truck, so that has been time consuming. Whether that is getting the forklift, if that forklift is even adequate for the size and weight of the*
unit, or does that mean we need to secure some other service... that has been the challenge with those refrigerators.

Recommendations

1. **Add flexibility to the produce stocking requirement rather than mandating that stores stock exclusively CA-grown produce and clarify the reporting process.** Interviewees advocated for greater flexibility in the standard to both acknowledge barriers that stores face while still supporting CA farmers. Their ideas included reducing the required proportion of CA-grown products (e.g. from 100% CA-grown to 80%), relaxing requirements during the off-season, or encouraging, but not requiring, storeowners to purchase CA-grown.

   Interviewees also suggested other tools that could help stores access CA-grown produce, including providing guidance on where to find CA-grown products (e.g. recommendations of specific suppliers, distributors, or wholesalers), information about how to identify CA-grown produce, and information on the seasonality of foods grown in CA.

   Finally, interviewees requested that CDFA provide clear and specific information about how the CA-grown requirement would be monitored. Specifically, they requested that their role, as grantee organizations, in reporting compliance be clearly articulated.

2. **Increase the technical assistance budget for community-based organizations.** Half of the interviewees recommended increasing the allowed budget allocation for technical assistance to reflect the time required to help stores participate in the program. Additionally, interviewees recommended listing evaluation as an expectation of the contract and including funding to support time spent on evaluation.

3. **Provide more guidance on fridge selection.** A majority of interviewees mentioned a desire for more support with fridge selection. Some reported that the Energy Star database shared by CDFA was a good start but having more recommendations or parameters would have been helpful. A common suggestion was having a contact or point person to help select the right unit for a store. Other interviewees suggested that grantees could learn from each other, by learning about who other grantees had selected for their respective stores.

4. **Share knowledge on produce merchandising and refrigeration maintenance.** Several interviewees suggested that providing access to knowledge on how to merchandise produce and maintain the refrigerators would help maintain store improvements. Many storeowners did not know best practices for selling and storing produce. These stores could benefit from the use of a shared produce consultant or tip sheet, such as the one...
developed by one of the grantees, available in Appendix B.

5. **Stimulate demand with increased marketing support.** While the grant is instrumental in providing necessary equipment to sell produce, stimulating customer demand remains a challenge for stores. Providing marketing tools to increase demand of new produce items, such as posters and shelf talkers, marketing and advertising campaigns, or funding for events to inform the community of new offerings could make selling produce more sustainable for businesses. Several interviewees also suggested the use of economic incentives for customers to motivate purchasing.

**Conclusions**

This study finds that the CDFA Healthy Stores Refrigeration Grant program meets an important need in improving retail environments by providing necessary equipment for small stores to offer produce. There does, however, remain peripheral challenges for community-based organizations and the stores they work with. The organizations provided significant amounts of technical assistance, beyond grant provisions, to help stores with refrigeration selection and produce merchandising. Additionally, procurement of competitively priced produce remains a challenge for storeowners. The requirement to source exclusively CA-grown products is an additional barrier and organizations would benefit from more resources to facilitate sourcing. Organizations are grateful for the opportunity presented by CDFA to support their existing work by providing refrigeration units — equipment needed for them to help stores accomplish their goals.
Appendix A: Community-based Organization Interview Guide
Community-based organization interview guide

Key topic area 1: Program-specific information

1. First, please tell me a little bit about your healthy retail program. What is the goal of the program?
2. What would you say are the main reasons the program is successful? What are the program’s biggest challenges?
3. How do you select which stores to work with?
4. What does the program offer to stores it works with?
5. What motivates stores to participate in the program? What are your recruitment strategies?
6. What are the predictors to successfully recruiting a store? Characteristics of stores or storeowners that make some better candidates than others?
7. What are the biggest challenges storeowners face to adopting healthier strategies?
8. How often do you have store turnover? What are the reasons for turnover?
9. How is your program funded?

Key topic area 2: CDFA-related questions

The next set of questions will ask you about the Healthy Stores Refrigeration Grant Program of the California Department of Food and Agriculture (CDFA).

10. Please describe how you heard about the refrigeration grant opportunity.
11. Why did you decide to apply to the refrigeration grant program?
12. Please describe your experience with the refrigeration grant program.
13. What are your thoughts about the criteria of the grant? Have these criteria affected recruitment and if so, how?
14. Have you run into any challenges with the grant program or setting your stores up with a refrigerator?
15. If CDFA were able to provide any technical assistance, what kind of support or assistance would be most helpful to you?
16. What kind of support or assistance would be most helpful to the stores you’re working with?
17. Do you have any suggestions to improve the grant program?
18. Do you have any suggestions for a different program focused on healthy food?

CONCLUSION

19. Is there anything you would like to talk about that we didn’t cover?
Appendix B: Refrigeration Tip Sheet

This tip sheet was created by the Alameda County Public Health Department to provide information for storeowners on the rationale for selecting energy-efficient refrigeration, tips for selecting refrigeration units, and how to maintain a refrigeration unit. This resource is included as an example of a technical assistance resource that may be beneficial if provided to grantees.
Refrigeration Tips
Healthy Retail Convening

Selection

- Determine refrigeration size based on intended use, one big unit is more efficient than two small units
- Choose commercial refrigerator with casters for easy movement to clean and maintain
- Choose closed door refrigerators and freezers with an ENERGY STAR label
- Solid doors are better than glass doors and cost less to buy and operate
- R290 or natural refrigerant units are more efficient and environmentally friendly.

Maintenance

- Make room around the refrigerator & freezer condenser vent for air circulation.
- For glass doors, check anti-sweat heaters and turn them off when not needed
- Worn rubber gaskets around doors and malfunctioning auto door closers increase costs and reduce food quality and shelf life
- Clean the refrigeration coils of dust and any other airborne particulate. Clean coils save up to 50% energy.
- Empty out the condensate pan and turn off condensate heaters for fridges

Energy Use and Cost

<table>
<thead>
<tr>
<th>1 Door Commercial Refrigerator</th>
<th>Maximum Daily Energy</th>
<th>Annual Energy Cost</th>
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<tbody>
<tr>
<td>Less efficient</td>
<td>4.44 KWh</td>
<td>$243/year*</td>
</tr>
<tr>
<td>Energy Star</td>
<td>1.89 KWh</td>
<td>$103/year*</td>
</tr>
</tbody>
</table>

*assuming $0.15 per kWh
Cost savings for 10 years not counting inflation and energy cost ~ $1,680.00
Cost savings for 20 years not counting inflation and energy cost ~ $4,860.00

https://www.energy.gov/eere/femp/purchasing-energy-efficient-commercial-refrigerators-and-freezers
https://fishnick.com/ - Reviewed the Refrigeration tips for accuracy