

# Backpack Programs and the Crisis Narrative of Child Hunger—A Critical Review of the Rationale, Targeting, and Potential Benefits and Harms of an Expanding but Untested Model of Practice

Maryah S Fram<sup>1,3</sup> and Edward A Frongillo<sup>2,3</sup>

<sup>1</sup>College of Social Work, <sup>2</sup>Department of Health Promotion, Education, and Behavior, and <sup>3</sup>Center for Research in Nutrition and Health Disparities, Arnold School of Public Health, University of South Carolina, Columbia, SC

## ABSTRACT

In recent years, school-based food backpack programs (BPPs) have come into national prominence as a response to a perceived crisis of child hunger in America. Distributing bags of free food directly to schoolchildren for their own personal consumption each weekend, BPPs bring together private donors, faith communities, and public schools around an intuitively appealing project: children are hungry, and so we give them food. Perhaps because of their intuitive appeal, BPPs have expanded rapidly, without rigorous evaluation to determine their impacts on children, families, and schools. This Perspective aims to open up thinking about BPPs, first articulating the implicit conceptual model that undergirds BPPs, drawing on documentation offered by major program providers and on our own experience working with several schools implementing BPPs, to provide a window into what BPPs do and how and why they do it. We focus in particular on how the crisis narrative of child hunger has shaped the BPP model and on the related interplay between public sympathy and the neoliberal climate in which structural solutions to family poverty are eschewed. We then assess the BPP model in light of existing knowledge, concluding that BPPs fit poorly with the needs of the majority of children living in food-insecure households in the United States and consequently put children at risk of negative consequences associated with worry, shame, stigma, and disruptions to family functioning. Finally, we provide recommendations for practice and research, emphasizing the importance of 1) responding to children's actual needs throughout program implementation, 2) avoiding unnecessary risks by effective targeting of services to only those children who need them, and 3) rigorously evaluating program outcomes and unintended consequences to determine whether, even for the small number of US children who experience hunger, the benefits of the BPP model outweigh its psychosocial costs. *Adv Nutr* 2018;9:1–8.

**Keywords:** backpack program, child food insecurity, child hunger, program evaluation, crisis narrative

## Introduction

The notion that there could be hungry children in a country as affluent as America elicits strong feelings and a sense of collective urgency. People across the political and socioeconomic spectrum feel compelled to respond quickly,

and this seems possible both because the problem itself seems simple (children need more food) and the solution seems within reach (there is plenty of food available to give them). Over recent years, this thinking has catapulted a new intervention—school-based food backpack programs (BPPs)—into national prominence. The first documented program began in Arkansas in 1994 when a school nurse noticed children arriving at school on Mondays tired, hungry, and not ready to learn (1, 2). BPPs now reach >800,000 children across ≥45 states (3, 4), providing bags of foods for children to eat on weekends. BPPs are supported by corporate, educational, nonprofit, and faith-based organizations (5, 6), and the Internet is replete with messaging about the

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Address correspondence to MSF (e-mail: [fram@mailbox.sc.edu](mailto:fram@mailbox.sc.edu)).

importance of BPPs to children's well-being and resources for starting new programs (7).

Despite their prominence, little is known about who receives BPP services, what they experience, or the impacts of BPP participation. There is some evidence that school staff believe the programs to be helpful, and some evidence that families are satisfied with services (8). One study showed that schools that elect to offer BPPs have better average test scores than those that elect not to offer them (9). Internal evaluation of BPPs suggests some positive impacts on household food security status and on families' ability to meet their budgetary needs, but also finds that selection bias makes it hard to know whether BPPs actually cause these impacts (10). Ultimately, the absence of rigorous, independent research on the effects of BPPs means that there is a risk that, however simple and intuitive they may seem and however satisfying to the people who are involved in delivering them, BPPs might not improve well-being for those they reach.

In part, the deeply intuitive nature of BPPs may mask the need for rigorous evaluation. It seems simple: there are hungry children, so BPPs give them food, and that must be good. But both the problem and the program model are more complex than they first seem. Indeed, although many American children live in food-insecure households, which are characterized by a range of stressors, few of these children experience hunger (11). BPPs deliver food, but they also convey powerful messages to children, their peers, and their families—messages about who is needy, what they need, and who can meet their needs. Finally, giving food directly to young children may have a variety of unintended consequences, potentially having negative impacts on parental authority and decision making, family dynamics, and diet quality.

This Perspective aims to open up thinking about BPPs, clarifying the need for rigorous evaluation by digging below the intuitive appeal to identify and assess the underlying assumptions and theory of change. We describe the implicit conceptual model that undergirds BPPs, drawing on documentation offered by major program providers and on our own experience working with several schools implementing BPPs as a window into the understandings that drive this program model. We then assess the BPP model in light of existing knowledge and theory and discuss implications for practice and research.

## Current Status of Knowledge

### The implicit conceptual model

“One in 5 American children face food insecurity—more than the populations of New York City, Los Angeles and Chicago combined. During the school week, most of these children depend on the federal free and reduced meal program their school offers. Sometimes, the meals at school are the only ones they get. When the school closes its doors on Friday afternoon, many of these children go home to empty cupboards and empty bellies for 65 h until they return to

school on Monday morning. Who will feed them this weekend?” (4)

The implicit BPP model is simple. Children, primarily in elementary and middle schools, who are suspected of experiencing hunger are identified, usually by teachers or school staff but sometimes by parents. Identified children are then provided each week with a backpack or bag filled with easy-to-prepare, shelf-stable foods to be consumed over the weekend. Children bring the food home at the end of the school week, then return the empty backpack to school on Monday to be refilled for the following week. The next sections unpack this model, examining its underlying assumptions about the problem being addressed and the related theory of change.

### Understanding the problem: targeting those to be served

The rationale for BPPs is to provide food for children who otherwise would go hungry, but in practice, these programs often target children who “face food insecurity” (as seen in the quote above) (7, 12). Some programs target even more broadly for all children who are eligible for free or reduced-price school meals. For instance, in its manual on starting a BPP, Hunger Free Colorado recommends that, “Children who receive free or reduced-priced school meals are commonly considered high need and likely participants for your backpack food program” (7). This broad targeting reflects conceptual slippage between household food insecurity and child hunger, as made explicit in some program materials: “There are more than 15 million children in this country who are at risk of hunger” (12). The term “food insecurity” is not well understood by the general public, so it may be that the term “at risk of hunger” is being used to make program information more relatable and accessible. The 2 terms are not equivalent. Although ~13 million US children lived in a household that experienced some degree of food insecurity at some point during 2016, only 1% of children lived in households where any children experienced very low food security (went hungry, skipped a meal, or went a whole day without eating) (11). Because most households that experience food insecurity only do so for a limited period of time, on any given day in 2016 the share of children who were hungry was much lower, estimated between 0.12% and 0.15% of all US households with children (11). These statistics are based on parental reports that may underestimate the extent to which children experience food insecurity and hunger (13), but there is no compelling evidence that anywhere near 15 million US children go hungry, are at risk of hunger, or are in need of additional food; the evidence is much to the contrary.

So why might BPP programs choose to imply that living in a household that experiences any degree of food insecurity makes a child “at risk of hunger”? The targeting of BPPs to an inflated number of children communicates a sense of crisis and provides an emotionally gripping basis for support for private-sector charitable antihunger efforts. So, with billboards and television celebrities telling us how many children go hungry, it is perhaps not surprising that the charity food

systems' revenues and programming are increasing (14), even while eroding support for the Supplemental Nutrition Assistance Program (SNAP) has ushered in restrictions that will likely push many families into food insecurity [see, e.g., (15–17)]. In short, the charitable food system is able to translate public sympathies for children's hunger into monetary and programmatic support [e.g., "More than 15 million children face hunger in the U.S. today ... make a donation today" (18)] that could not so easily be galvanized toward low-income households within the current neoliberal climate (19). The ability to develop and harness public sympathy is an important strategic tool—it may be highly effective for ensuring the organizational capacity necessary to sustain important services and programs, particularly when we lack the political will to adequately resource public antipoverty programs. But there is also a potential cost when the simplifications that make for effective marketing are reified as knowledge that guides programs and services (20).

The "crisis narrative" [see (21, 22)] of the hungry child is compelling, in part because it capitalizes on the image of the vulnerable child alone: "Sometimes, the meals at school are the only ones they get... Who will feed them this weekend?" Note that the question is not "What will they eat this weekend?" or "What will their parents have to feed them this weekend?" or "When will their parents' wages be enough to provide a decent standard of living?" The missing element is not access to food, not decent jobs and wages, but rather, someone (e.g., the responsible parent) to feed the child. That image of the hungry child alone has become the rationale for the BPP model of services. One BPP manual makes this explicit, explaining that, "Referring a family to a local food pantry is an easy way for an entire family to receive assistance while reserving backpack food items for students whose parents are not willing or able to access local pantries" (23). In this way, BPP marketing discourse interweaves the intuitive sympathy we feel for a hungry child with a suspicion of the parents who, it is hinted, are failing to feed her or him. These suspicions are cued both by the assertion that children are going hungry each weekend, and through the language of welfare dependency: "most of these children depend on the federal free and reduced meal program their school offers" (4).

Children's dependence on school meals is not their fault—children are supposed to be dependent on adults to meet their needs—but the suspicion and blame that Americans generally associate with social welfare participation are invoked [see Fraser and Gordon (24)], which becomes attached to the parents who, despite public assistance (free school meals), allegedly have empty cupboards and hungry children. Because these children cannot depend on their parents—so the narrative goes—they need someone else to step in to help ("Who will feed them this weekend?"). In this way, BPPs represent an opportunity for dependable adults (i.e., donors, volunteers) to reach into vulnerable children's homes each weekend, so that through charity they can accomplish what parents and public programs fail to do. So, the BPP targeting approach accomplishes far more than overstating program needs. It creates a space in which the consumer of their

marketing materials can feel ideologically consistent in mistrusting public programs aimed at reducing household food insecurity while supporting BPPs that aim to compensate for parental failures. In this context, it is perhaps not surprising that a recent study of the Arkansas Rice Depot BPP (9) found that school staff believed that approximately one-third of BPP children needed backpacks because their parents were unwilling, rather than financially unable, to meet their food needs. The assumption that children go hungry because of inadequate parenting also shapes the type of benefits BPPs provide and how those benefits are provided, as will be discussed below.

### Responding to the problem: the program model

BPPs focus on providing children with food that they can prepare and consume without any parental assistance. One major BPP provider recommends: "Consider the cooking utensils and tools the child has available. If parents are working and the child will be preparing his own food, include cans with pop-off tops that do not require a can opener. Include foods that are ready to eat or require little to no cooking as the child may not have access to a kitchen, stove, or a microwave" (7). The rationale that parents may be working is less pejorative than the assumption that parents are unwilling to feed their children, but because these programs often target elementary school-aged children, the notion that a child is alone to manage his or her food needs even on the weekend reinforces images of a troubled home environment. If the message is not always of the unwilling parent, it is of the inadequate or unavailable one.

Grounded in an assumption that hungry children must feed themselves over the weekend, BPPs tend to provide foods that are limited in nutritional quality (25). One program manual provides the following "sample food wish list" for their BPP: "Vienna Sausage, Canned Tuna or Chicken, Canned Soups, Chili, Chef Boyardee Pasta Meals, Spaghetti's, Tuna/Chicken Lunch Kits, Beanee Weenees, Macaroni and Cheese, Canned Soup, Peanut Butter, Vegetables, Pork and Beans Snacks, Peanut Butter/Cheese Crackers, Granola Bars, Fruit Cups, Applesauce, Pudding, Individual Cereal, Instant Oatmeal, Fruit/Cereal Bars" (23). Easy-open and easy-preparation foods are justified over healthy staple foods that parents could use to supplement constrained food budgets in ways that promote dietary health, perhaps for the whole family. This choice flows logically from program assumptions about the nature of children's needs: they do not have enough food because of their parents' failures. The answer, then, is not to increase parental purchasing power or access to foods so that parents can better meet children's food needs but rather to give food directly to children who, alone, can feed themselves over the weekends when schools are not there to feed them.

The ongoing, weekly provision of a weekend's worth of food to young children involves decisions with both practical and ethical dimensions, as reflected in this advice to those planning new BPPs: "Many programs work with teachers to distribute the bags to the students. Other programs

distribute the food in a central location, like the front office. Think about which model will work best for your program and will make the children feel the best about receiving the bags” (7). The practical and organizational challenges of implementing a BPP can be substantial, particularly for schools with large programs. For instance, in our own work, schools struggled to find physical space to store food bags, to allocate staff time for program demands, and to manage the logistics of children picking up their bags while also maintaining the integrity of instructional time (26). These school organizational burdens have to be managed in tension with concerns about children’s privacy and feelings about program participation, as one BPP manual notes: “think about the possibility of creating a stigma for the children that receive the food bag. Additionally, children who may not receive a bag may feel bad themselves and envious of the other children. Consider how you can hand out the bags so no child feels bad about participating or sad for not participating in the program” (7). To avoid stigma, some programs try to maintain confidentiality about who is receiving a backpack (27), dismissing children to privately receive their food bags, whereas other programs seem to prioritize convenience, distributing food in the classroom. One program manual suggests that teachers keep large plastic bins in their classrooms throughout the week to store the food bags when they arrive (7). However the food distribution process is managed, children themselves are aware that they are being given food for their personal consumption over the weekend—and they are likely aware of what that implies.

The targeting of children to receive food and bring it home from school assumes that parents either cannot or should not receive the food on behalf of their children, and it assumes that food given directly to children will be used as intended. The first assumption may flow from concerns about parents’ willingness to feed their children, but it also may aim to overcome practical barriers by layering food distribution onto existing school-based systems. Children already take materials home from school each weekend in their schoolbags, and regardless of where they live, they are provided transportation to do so (school buses). Adding food onto what children bring home relieves parents of additional burdens—this may be crucial, particularly for families that have the greatest material and economic hardships, those who live in remote or underserved areas, and those without access to public transportation. The second assumption seems more dubious. The food bags are different from other materials that schools deliver to parents via their children, in that the food is given to the child and intended for the child’s own use. It is unclear that children as young as 6 or 7 y old can understand and make “good” choices about how to use food resources. In our own work, we learned that some children used BPP food to augment or replace food from home over the weekend (potentially replacing healthier but less desirable parent-provided options with BPP foods), some sold or gave away BPP food on the bus ride home, and others left foods they did not prefer in their desks at school or gave it to parents to discard (26). One child reported feeling ill after eating BPP

food to such an extent that his parent opted to stop participating in the program (26).

Thus far, we have critically discussed the BPP model, its explicit and implicit goals and underlying assumptions, and the compromises inherent in using this approach to meet children’s food-related needs. If program assumptions are true—if large shares of American children lack sufficient quantities of food each weekend, if parents are unwilling or unable to use food resources well on their children’s behalf, if schools can efficiently integrate food distribution without compromising other organizational priorities, if the risks of stigma are relatively low compared with the risks of malnutrition, and if children use BPP foods as intended—then the compromises inherent in the BPP model might be warranted. In the next section we discuss the BPP model in the context of what we know about the needs of children who experience food insecurity.

### **The BPP model and the needs of children who experience food insecurity**

Children who live in food-insecure households have a diet quality similar to that of their food-secure peers (28), and few experience hunger due to not having enough food (11). This does not, however, mean that children in food-insecure households are not at risk: children in households with even the lowest levels of food insecurity (worry about the food supply rather than any compromises in food quality or quantity) fare worse on a variety of developmental outcomes than their peers in food-secure households (29). Instead, it means that the mechanisms through which household food insecurity affects children in the America are largely nonnutritional, operating through the stresses, strains, stigma, and shame that characterize daily life in families that are economically vulnerable enough that they worry about food (30). Children are aware of and worry about the difficulties their parents go through in managing household food needs, and they worry in particular when parents cut back their own food in order for children to eat (13, 31). Children’s food-related stress is exacerbated when they take on responsibilities for acquiring and managing food resources, constraining the time and energy they can devote to education and other developmental demands, and potentially leading to “adultification” [see (32)]. As they navigate these food-related stressors within broader social environments, children feel shame and embarrassment (33) and find ways to hide their food situation from peers, teachers, and others (13). It is important to consider the BPP model in light of these nonnutritional pathways that compromise children’s well-being and development.

### **BPPs and child worry**

Children’s exposure to the chronic stresses of poverty is associated with deficits in cognitive development, physical health, and socioemotional and self-regulatory development (34, 35). One main mechanism for these relations involves physiologic stress responses (along the hypothalamic-pituitary-adrenal axis). Positive, responsive parenting has been found

to moderate these stress responses, because parents buffer their children from the impact of economic strains, and help children manage their feelings in healthy ways (36). Along these lines, Flinn and England (37) found that family stability but not material conditions (including diet quality) was related to children's cortisol concentrations, and Kuehn (38) highlighted the importance of parent-centered interventions to disrupting the poverty-stress-development pathway for children.

Household food insecurity can expose children to stress when it leads children to worry about having enough food and about what their parents go through in order to feed them (13). Even young children are aware of family food resources (e.g., when SNAP benefits come in each month, when food is running low); and when they perceive parental stress about having enough food, they experience feelings such as worry, sadness, and anger, and they become vigilant in monitoring the household food supply—even in households in which there is ultimately enough to eat (13). Children are also aware when their parents skip meals, work extra jobs, argue about money, and compromise some needs (e.g., adult health care, maintaining a car, paying electric or water bills, stable housing) to pay for enough food (13, 31).

BPPs aim to reduce children's experiences of household food insecurity by adding free food for the child into the overall household food supply. This could potentially reduce children's stress exposure by freeing up money with which parents can meet other needs, thus reducing parental economic strains and supporting more responsive parenting. By giving food directly to children and communicating that the food is intended for children's consumption, however, BPPs may validate and exacerbate rather than alleviate children's food-related worries, including their concerns about their parents having enough to eat. In addition, giving food to children shifts some of the responsibility for managing the stressors of poverty literally onto their shoulders: this may compromise children's confidence that their parents can and will meet their needs, and it creates an additional barrier to parents' ability to buffer children from poverty-related stress. Finally, because exposure to stress is associated with increased consumption of highly palatable food and overall increased energy consumption (39), the provision of highly palatable foods directly to young children may increase both children's stress and their likelihood of habitually consuming unhealthy foods as a stress-coping mechanism. If the goal of BPPs is to reduce food-related stress and worry for children, it would be better to put resources in the hands of parents, thus enhancing parental well-being and capacity to adequately and nutritiously feed their children, and to protect them from poverty-related stress [see, e.g., (40)].

### **BPPs and child shame and stigma**

Stigma is an attribute that identifies its possessor as "different from others" and "of a less desirable kind" (41). When an individual is stigmatized—treated as different and less desirable—they may internalize their differential treatment as shame, which, in turn, leads to withdrawal, hiding,

anxiety, depression, and other negative feelings and coping responses that compromise well-being (33, 42, 43). Poor children are often stigmatized, identified as different and lesser by what they wear, how they speak, how they spend their leisure time, where they live, and what they eat (44). Stigma is often attached to nuanced details that are noticeable largely because of the class status they represent. For instance, a specific clothing brand name or logo accrues benefits to those who wear it and costs to those who do not; not because, for instance, a brand-name coat is itself better in any functional sense, but because it signals the higher socioeconomic status of those who can afford it (44). In this way, the details of daily life are important beyond (or even despite) their material effects. As public markers of status, these details shape a child's social identity, social capital, and access to important life opportunities within school and other settings where they are marked. Even young children tend to be aware of the social meaning and impact of things that mark them, feeling shame when they are marked as poor, and strategizing to hide those markers (33, 44, 45).

Because schools are central contexts for children's development, efforts have increased in recent years to reduce poverty stigma within school settings by eliminating the detailed differences that mark children's socioeconomic status. For instance, schools seek to make poor and nonpoor children less distinguishable through school uniform requirements (46) and through processes and practices that make means-tested program eligibility less visible (47) (e.g., universal school breakfasts, single lines for full-pay and free or reduced lunch, use of individual codes rather than lunch tickets). Legislation has been introduced in several states to prevent schools from "shaming" children whose parents do not pay their school lunch bills, requiring that children receive the same lunch meal regardless of payment, and that all communication surrounding lunch payment be made directly between schools and parents (i.e., children cannot be used to convey that information) (48). BPPs also often try to make program participation invisible by placing food bags in student backpacks privately or by calling students to pick up their food bags without saying why they are being called out of class. Weekly bags of food are not easy to hide, however, so it should not be surprising that efforts at invisibility often do not work. Children open their backpacks on the school bus, they ask each other about why they were called out of class, and, when students notice patterns—that those receiving backpacks are also marked as poor in other ways—children who receive food backpacks can be stigmatized and feel shame, embarrassment, and anxiety (26). Indeed, being identified by school staff as possibly needing the BPP can itself cause anxiety, alerting children that, despite their efforts to hide their (and their parents') poverty, somehow school staff have identified them. It may be that receiving BPP food allows parents to afford things (clothes, activities, etc.) that would help their children escape the poverty stigma. But if that were the goal, it would be better accomplished by providing parents directly with free food or money. For instance, the money that is now used to purchase BPP food could instead

**TABLE 1** Potential positive and negative consequences of school BPPs for targeting, delivery, and taking up of services, and generation of impact<sup>1</sup>

Program functions	Potential positive consequences	Potential negative consequences
Targeting by identifying children in need by school staff or parents or all children eligible for free or reduced-price school meals	<ul style="list-style-type: none"> <li>• High sensitivity (i.e., high proportion of children with hunger receive BPPs)</li> </ul>	<ul style="list-style-type: none"> <li>• Low specificity (i.e., high proportion of children without hunger receive BPPs)</li> <li>• Many children receiving BPPs who will not benefit</li> <li>• Inefficiency</li> </ul>
Delivery and taking up of services	<ul style="list-style-type: none"> <li>• Makes use of existing system</li> <li>• Active behavior required to take up services minimized because children are in school and are given BPPs</li> </ul>	<ul style="list-style-type: none"> <li>• Schools contribute unreimbursed time, staff effort, and space</li> <li>• Substantial management required</li> </ul>
Impact generated on charity food system	<ul style="list-style-type: none"> <li>• Harnesses public sympathy</li> <li>• Provides sense of crisis and emotionally gripping basis for financial and programming support</li> <li>• Providers can feel ideologically consistent in mistrusting public programs while supporting BPPs to supposedly compensate for parental failures</li> </ul>	<ul style="list-style-type: none"> <li>• Casts suspicion on parents and public programs as unwilling or unable to feed their children adequately</li> <li>• Ignores underlying and basic causes of food insecurity and hunger and alternative actions</li> </ul>
Impact generated on schools	<ul style="list-style-type: none"> <li>• Possible opportunities for engagement with children and families</li> <li>• Heightened awareness of food insecurity and hunger</li> </ul>	<ul style="list-style-type: none"> <li>• Undermining of school efforts to eliminate marking of children's socioeconomic status and reduce stigma</li> <li>• Diverts school staff time away from other responsibilities</li> <li>• Storage and management of food disruptive to school</li> </ul>
Impact generated on children	<ul style="list-style-type: none"> <li>• Food provided to small number of children who would otherwise go hungry</li> </ul>	<ul style="list-style-type: none"> <li>• Stigma, shame, and anxiety</li> <li>• Poor food quality resulting in poor diet quality and possible overweight</li> <li>• Undermining of confidence in parents</li> <li>• Food provided to many children who would not go hungry</li> </ul>
Impact generated on households	<ul style="list-style-type: none"> <li>• Augmenting of household food supply</li> </ul>	<ul style="list-style-type: none"> <li>• Undermining of parental authority and decision making, family dynamics, and diet quality</li> </ul>

<sup>1</sup> BPP, backpack program.

be given to parents. Providing parents with food or money, however, implies trust that parents will make good decisions on how best to use resources to meet children's needs, and this is not consistent with the foundational understanding of BPPs that parental inadequacies are the cause of children's food-related problems.

## Conclusions

BPPs began as an informal, small-scale, intuitive response to a practitioner-identified problem; however, they are fast becoming a national movement, affecting many children, families, and school systems. This rapid expansion flows, in part, from the powerful image of the hungry child alone, and from the political flexibility that this image provides, garnering support from liberals and conservatives alike and turning that support into donations of money and time. In part, the expansion reflects the commonsense appeal of the BPP approach—if children are hungry, we should give them food—and the satisfaction that people feel when they can help make things better. A closer look at the nature of children's experiences of food insecurity and existing knowledge about child development, however, suggests that BPPs are poorly aligned with the needs of many children who

participate in them (Table 1). On any given day, there is a small share of US children who lack access to sufficient amounts of food and whose parents cannot or do not meet their needs—this represents children in ~0.18% of all households with children. This small group of children may experience BPPs as empowering them with greater control over their lives, buffering them against hunger and food-related worries, and validating that they are, in some ways, alone in meeting their needs while at home. Even this small group of children would likely benefit from delivery systems that better avoid stigma and foods that allow for more nutritious meals than is often provided by BPP. In the absence of rigorous research, we do not know the impact of BPPs on this small group who we would expect to accrue the most positive benefits, potentially outweighing any unintended negative program consequences. For the majority of children in BPPs who likely do not need additional food, BPPs may do more harm than good, offering an unhelpful resource in a way that is likely to exacerbate stress, stigma, and shame while undermining children's confidence that their parents have the resources to meet the family's needs and placing children in the adult role of food provision.

Although some BPP providers conduct their own program evaluations, those efforts tend to focus on the satisfaction of service providers and recipients rather than an independent assessment of program effects. Rigorous evaluation of program effects requires allocating funds and adherence to a research protocol. But, the popularity of BPPs is exactly the reason why evaluation efforts must go beyond assessing satisfaction: we should expect that those involved in BPPs believe that they work and value the programs; otherwise, they would not choose to participate. What is needed now is work to determine what BPPs do, to whom, and how. This is critical because regardless of whether BPPs feel good to those who provide and receive them, existing research and theory suggest that we should be concerned that these programs may do real harm—and people need to know what effects are likely so that they can make informed decisions about whether or not to provide BPPs or participate in them.

Moving forward, we have 3 recommendations. First, those currently providing BPPs should carefully, openly, and critically consider the issues and information discussed in this Perspective and implications for their programming. Then, if continuing to provide a BPP is deemed justified, program leaders can develop ways to refine and improve service delivery to be more responsive to children's and families' actual food-related problems and to issues of stress, stigma, and family and school functioning. These developments could lead to changes in who is served, in what they receive, and in how benefits are provided.

Second, program providers and the research community should work together to develop targeting methods that 1) accurately distinguish children and families who need additional food-related services from those who do not and 2) among those with food-related needs, distinguish between those who will benefit from receiving additional food from those who will not and instead who may benefit from other services. For instance, universal child screening with validated tools (49) can focus attention on children at risk, and follow-up with in-depth assessment of individual children who screen positive for hunger can pinpoint the determinants of that risk and suggest strategies that are likely to be beneficial (and not harmful) in response (26). Such screening would clarify which children would benefit from a food backpack and which would be better served by outreach to parents. Outreach to parents may include information about applying for SNAP or other benefits; linkages to community resources that can help with homelessness prevention, energy assistance, and other material needs; and direct services related to meal planning, food budgeting, and parenting strategies for buffering children from the effects of poverty-related stressors.

Third, although BPPs are serving many more children than can benefit, BPPs may be beneficial to a small group of school-aged children whose parents, even with supports and access to resources, are not consistently able to manage their children's food needs. But even for these children, we need to know more about the intended and unintended impacts of BPP services on their health and development—and on

school systems—through rigorous program evaluation. Such work will require collaborations between program providers and independent researchers that create space for developing the science of BPPs and using the obtained evidence to make policy and programmatic decisions that best advance children's welfare.

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## References

1. Education World. For hungry kids, backpacks lighten load [Internet]. Colchester (CT): Education World, Inc.; 2015 [cited 2017 Apr 20]. Available from: [http://www.educationworld.com/a\\_admin/admin/admin495.shtml](http://www.educationworld.com/a_admin/admin/admin495.shtml).
2. Arkansas Rice Depot. Food for kids [Internet]. Little Rock (AR): Arkansas Rice Depot; 2015 [cited 2015 Oct 23]. Available from: <http://www.ricedepot.org/programs/food-for-kids/>.
3. Feeding America. Backpack program [Internet]. Chicago: Feeding America; 2015 [cited 2015 Oct 23]. Available from: <http://www.feedingamerica.org/about-us/we-feed-children/backpack-program/>.
4. Blessings in a Backpack. Feeding the future of America [Internet]. Louisville (KY): Blessings in a Backpack; 2015 [cited 2015 Oct 23]. Available from: <http://www.blessingsinabackpack.org/>.
5. Northwestern University. NU dance marathon names 2016 beneficiaries: gift to help feed hungry school-aged children from Evanston, Chicago, across country [Internet]. 2015 [cited 2017 Jun 12]. Available from: [https://news.northwestern.edu/stories/2015/05/nu-dance-marathon-names-2016-beneficiaries?utm\\_campaign=&utm\\_medium=email&utm\\_source=news](https://news.northwestern.edu/stories/2015/05/nu-dance-marathon-names-2016-beneficiaries?utm_campaign=&utm_medium=email&utm_source=news).
6. Sodexo Foundation. Backpack food program [Internet]. Sodexo Foundation; 2015 [cited 2015 Oct 23]. Available from: [http://www.sodexofoundation.org/hunger\\_us/initiatives/backpack.asp](http://www.sodexofoundation.org/hunger_us/initiatives/backpack.asp).
7. Hunger Free Colorado. Backpack food program starter toolkit [Internet]. Hunger Free Colorado; 2011 [cited 2015 Oct 23]. Available from: <http://www.hungerfreecommunities.org/wp-content/uploads/2011/06/HFC-Toolkit-for-starting-a-BackPack-Food-Program.pdf>.
8. Cotugna N, Forbes S. A backpack program provides help for weekend child hunger. *J Hunger Environ Nutr* 2008;2(4):39–45.
9. Rodgers YV, Milewska M. Food assistance through the school system. *J Child Poverty* 2007;13(1):75–95.
10. Fiese BH. Backpack program evaluation [Internet]. Feeding America [cited 2017 Apr 24]. Available from: <http://www.feedingamerica.org/hunger-in-america/our-research/program-evaluation/backpack-program-evaluation.PDF>.
11. Coleman-Jensen A, Rabbitt MP, Gregory C, Singh A. Household food security in the United States in 2016. Washington (DC): USDA; 2016. Report No.: ERR237. Available from: [cited 2017 Sept 7]. <https://www.ers.usda.gov/webdocs/publications/84973/err-237.pdf?v=42979>.
12. Blessings in a Backpack. The facts: childhood hunger in the United States [Internet]. 2016 [cited 2017 Apr 20]. Available from: <http://www.blessingsinabackpack.org/about/the-facts/>.
13. Fram MS, Frongillo EA, Jones SJ, Williams RC, Burke MP, DeLoach KP, Blake CE. Children are aware of food insecurity and take responsibility for managing food resources. *J Nutr* 2011;141:1114–19.
14. Feeding America. 2016 Feeding America annual report [Internet]. Chicago: Feeding America; 2016 [cited 2017 Apr 24]. Available from: <http://www.feedingamerica.org/about-us/about-feeding-america/annual-report/2016-feeding-america-annual-report.pdf>.
15. Sayre W. Increased penalties for people on food stamps considered by legislature [Internet]. Miami (FL): WLRN News; April 4, 2017 [cited 2017 Apr 24]. Available from: <http://wlrn.org/post/increased-penalties-people-food-stamps-considered-legislature>.
16. Schneider C. State to able-bodied: get a job or lose your food stamps [Internet]. Atlanta (GA): Atlanta Journal-Constitution; March 28,

- 2017 [cited 2017 April 24]. Available from: <http://www.ajc.com/news/breaking-news/state-able-bodied-get-job-lose-your-food-stamps/MBfjMfmsgfBixmxmaEomcL/>.
17. DiStaso J. NH Senate tightens food stamp requirements while launching work programs for low-income parents [Internet]. Concord (NH): WMUR; March 30, 2017 [cited 2017 April 24]. Available from: <http://www.wmur.com/article/nh-senate-tightens-food-stamp-requirements-while-launching-work-program-for-low-income-parents/9211380>.
  18. Feeding America. Backpack program—related content: child hunger in America [Internet]. Chicago: Feeding America. 2016 [cited 2017 Apr 24]. Available from: <http://www.feedingamerica.org/about-us/helping-hungry-children/backpack-program/>.
  19. Ayo N. Understanding health promotion in a neoliberal climate and the making of health conscious citizens. *Crit Public Health* 2012;22(1):99–105.
  20. Fukuda-Parr S, Orr A. The MDG hunger target and the competing frameworks of food security. *J Hum Dev Cap* 2014;15(2–3):147–60.
  21. McDonnell E. Miracle foods: quinoa, curative metaphors, and the depoliticization of global hunger politics. *Gastronomica J Crit Food Stud* 2015;15(4):70–85.
  22. Rocheleau DE, Steinberg PE, Benjamin PA. Environment, development, crisis, and crusade: Ukambani, Kenya, 1890–1990. *World Dev* 1995;23(6):1037–51.
  23. Arkansas Rice Depot. Backpack program tool kit [Internet]. Little Rock (AR): Arkansas Rice Depot [cited 2017 Apr 20]. Available from: [https://arkansasfoodbank.org/wp-content/uploads/2015/05/Backpack\\_Program\\_Toolkit.pdf](https://arkansasfoodbank.org/wp-content/uploads/2015/05/Backpack_Program_Toolkit.pdf).
  24. Fraser N, Gordon L. A genealogy of dependency: tracing a keyword of the US welfare state. *Signs (Chic) J Women Cult Soc* 1994;19(2):309–36.
  25. Byker C, Smith T. Food assistance programs for children afford mixed dietary quality based on HEI-2010. *Nutr Res* 2015;35(1):35–40.
  26. Fram MS, Frongillo EA, Fishbein EM. Food for thought program: end-of-year report. Columbia (SC): University of South Carolina; 2013.
  27. Blessing in a Backpack. Feeding the future of America: a volunteer's guide to leading a Blessings in a Backpack program site [Internet]. Louisville (KY): Blessings in a Backpack; 2016 [cited 2017 June 12]. Available from: <https://blessingsinabackpack.org/wp-content/uploads/2016/01/Leading-a-Blessings-in-a-Backpack-Program-3.pdf>.
  28. Hanson KL, Connor LM. Food insecurity and dietary quality in US adults and children: a systematic review. *Am J Clin Nutr* 2014;100(2):684–92.
  29. Cook JT, Black M, Chilton M, Cutts D, Ettinger de Cuba S, Heeren TC, Rose-Jacobs R, Sandel M, Casey PH, Coleman S, et al. Are food insecurity's health impacts underestimated in the US population? Marginal food security also predicts adverse health outcomes in young US children and mothers. *Adv Nutr* 2013;4(1):51–61.
  30. National Research Council. Food insecurity and hunger in the United States: an assessment of the measure [Internet]. Washington (DC): Committee on National Statistics, Division of Behavioral and Social Sciences and Education; 2006. [cited 2017 Apr 20]. Available from: <http://nap.edu/11578>.
  31. Bernal J, Frongillo EA, Herrera H, Rivera J. Children live, feel, and respond to experiences of food insecurity that compromise their development and weight status in peri-urban Venezuela. *J Nutr* 2012;142(7):1343–9.
  32. Burton L. Childhood adultification in economically disadvantaged families: a conceptual model. *Family Relations* 2007;56(4):329–45.
  33. Bernal J, Frongillo EA, Jaffe K. Food insecurity of children and shame of others knowing they are without food. *J Hunger Environ Nutr* 2016;11(2):180–94.
  34. Wadsworth ME, Raviv T, Reinhard C, Wolff B, Santiago CD, Einhorn L. An indirect effects model of the association between poverty and child functioning: the role of children's poverty-related stress. *J Loss Trauma* 2008;13(2–3):156–85.
  35. Evans GW, Kim P. Childhood poverty, chronic stress, self-regulation, and coping. *Child Dev Perspect* 2013;7(1):43–8.
  36. Blair C, Granger DA, Willoughby M, Mills-Koonce R, Cox M, Greenberg MT, Kivlighan KT, Fortunato CK; Family Life Project Investigators. Salivary cortisol mediates effects of poverty and parenting on executive functions in early childhood. *Child Dev* 2011;82(6):1970–84.
  37. Flinn MV, England BG. Social economics of childhood glucocorticoid stress response and health. *Am J Phys Anthropol* 1997;102(1):33–53.
  38. Kuehn BM. Toxic stress threatens kids' long-term health. *JAMA* 2014;312(6):585–6.
  39. Sinha R, Jastreboff AM. Stress as a common risk factor for obesity and addiction. *Biol Psychiatry* 2013;73(9):827–35.
  40. Fernald LCH, Gunnar MR. Poverty-alleviation program participation and salivary cortisol in very low-income children. *Soc Sci Med* 2009;68:2180–9.
  41. Goffman E. *Stigma: notes on the management of spoiled identity*. New York: Simon and Schuster; 1963.
  42. Walker R, Kyomuhendo GB, Chase E, Choudhry S, Gubrium EK, Nicola JY, Lødemel I, Matthew L, Mwiine A, Pellissery S, et al. Poverty in global perspective: is shame a common denominator? *J Soc Policy* 2013;42(2):215–33.
  43. Mickelson KD, Williams SL. Perceived stigma of poverty and depression: examination of interpersonal and intrapersonal mediators. *J Soc Clin Psychol* 2008;27(9):903–30.
  44. Kustatscher M. Exploring young children's social identities: performing social class, gender and ethnicity in primary school [dissertation] [Internet]. Edinburgh (United Kingdom): University of Edinburgh; 2015. [cited 2017 Apr 20]. Available from: <https://www.era.lib.ed.ac.uk/bitstream/handle/1842/11773/Kustatscher2015.pdf?sequence=1&isAllowed=y>.
  45. Attree P. The social costs of child poverty: a systematic review of the qualitative evidence. *Child Soc* 2006;20(1):54–66.
  46. Kraus MW, Park JW, Tan JJX. Signs of social class: the experience of economic inequality in everyday life. *Perspect Psychol Sci* 2017;12(3):422–35.
  47. Pogash C. Free lunch isn't cool, so some students go hungry [Internet]. New York: The New York Times; March 1, 2008 [cited 2017 Jun 12]. Available from: <http://www.nytimes.com/2008/03/01/education/01lunch.html>.
  48. Food Research and Action Center. FRAC's Weekly News Digest [Internet]. Washington (DC): Food Research and Action Center; 2017. [cited 2017 June 5]. Available from: [http://org2.salsalabs.com/o/5118/p/salsa/web/common/public/content?content\\_item\\_KEY=13501](http://org2.salsalabs.com/o/5118/p/salsa/web/common/public/content?content_item_KEY=13501).
  49. Fram MS, Frongillo EA, Draper CL, Fishbein EM. Development and validation of a child report assessment of child food insecurity and comparison to parent report assessment. *J Hunger Environ Nutr* 2013;8(2):128–45.