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INTRODUCTION

According to the most recent study from Feeding America, the U.S. charitable food system (CFS), which includes regional food banks as the main procurers and food pantries as the main distributors, was serving about 46.5 million low-income people per year, including 12 million children and 7 million seniors (Weinfeld et al., 2014). And although unemployment has begun to stabilize since the 2008 recession, underemployment has kept demand high at food pantries, soup kitchens, and shelters.

In the decades since the CFS was established, its clientele has transformed from those in short-term crisis to those who are chronically food insecure, many of them living in households with members working in low-wage jobs. Furthermore, its patrons, like other low-income people in the United States, have been affected by the country's high rates of obesity and overweight (Flegal et al., 2012; Ogden et al., 2012), which have been linked to the consumption of specific kinds of foods and beverages (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2010). Thus, the nutritional quality, not merely the quantity, of the foods and beverages distributed by the CFS has the potential to make a critical difference to the nutritional quality of the diets of CFS recipients.

The CFS obtains food from three sources: those donated by growers, manufacturers, and retailers; foods supplied by the U.S. Department of Agriculture (USDA) through The Emergency Food Assistance Program (TEFAP) and Commodity Supplemental Food Program; and foods that are purchased with acquired funds. In recent years, donations from manufacturers have declined as a percentage of distributed food while food purchases have increased in both absolute terms and as a percentage of distributed pounds. Pounds of USDA foods decreased in 2012 compared

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to 2010 (U.S. Department of Agriculture, 2013b; Feeding America, 2013a, b). In light of the changes in CFS food sources, together with concern about obesity, food banks are increasingly aware of the need to improve the nutritional quality of charitable food. However, institutional changes are needed if the food banks are to routinely provide foods that enable clients to consume diets consistent with the Dietary Guidelines for Americans and to protect them from diet-related chronic diseases.

This paper will describe briefly how food banks have evolved over the past 40 years, identify influences on the nutritional aspects of the evolution, and, in the final section, provide a vision for the food bank network, including steps that would assist the CFS to provide foods of high nutritional quality.

EARLY FOOD BANKING

The concept of food banks emerged in the late 1960s in response to the increasing awareness of the prevalence of hunger in the United States and the need for stop-gap alternatives to provide for families that “fell through the cracks” of the (then) newly developed federal food assistance programs. At that time, a loosely organized network of food banks, Second Harvest, was formed (Poppendiek, 1998). These early food banks “rescued” foods, whose use-by dates were about to expire or were otherwise unsalable, from grocery stores and manufacturers. Volunteers using personal vehicles to secure and distribute donations were the norm. In the 1980s, there were significant cuts to social welfare programs and an increased need for charitable food. The number of food banks rapidly increased, and those participating in the Second Harvest network adopted more sophisticated organizational models to acquire, store, and distribute food (Poppendiek, 1998).

In its early years, Second Harvest mainly responded on an ad hoc basis to individual and collective emergencies. This operating mode allowed little time to thoroughly examine the food bank network’s operations or how it did (or did not) fit into the broader system of private and public assistance programs. However, by the 1990s, food banks were significantly more organized as a network and had established access to and relationships with major food manufacturers and distributors. The network had also secured contracts as the primary distributors of USDA TEFAP foods (U.S. Department of Agriculture, 2013a). Following welfare reform in 1996, the nature of charitable food recipients changed markedly. The system was no longer primarily serving jobless individuals with emergency assistance; instead, the majority of clients were in chronic need of food assistance, and many client families (more than 54 percent in 2014) contained a working member (Weinfeld et al., 2014; Poppendiek, 1998).

Food banks today function as valuable partners to often inadequately accessed governmental assistance programs. In addition to feeding those who fall outside the purview of the public assistance systems, food banks also refer eligible clients to the larger federal feeding programs such as the Supplemental Nutrition Assistance Program, the Special Supplemental Nutrition Program for Women, Infants, and Children, and other nutrition assistance programs and are effective advocates for strengthening the federal food assistance programs that they supplement.

TODAY'S FOOD BANKS

Many food banks currently maintain large warehouses, professional staff, and fleets of trucks, with levels of sophistication and efficiency that can match those of their food industry suppliers (Campbell et al., 2013). In brief, food banks, as the key organization at the fulcrum of the charitable food system, secure foods from food donations, government food programs, and purchases made with acquired funds. Most regional food banks—of which there are now about 200 in the United States—participate as members of the national network organization called Feeding America (which emerged from the previously described Second Harvest) (Campbell et al., 2013). The national Feeding America office functions as a broker, negotiator, and recipient for donations of foods and beverages from large food manufacturers, retailers, distributors, and growers. Regional food banks acquire a portion of their donated food and beverage inventory through the national Feeding America Choice System, which allows food banks to order donated foods on the basis of the shares they hold, a metric based on the number of pounds of inventory they distribute in relation to the prevalence of poverty in their catchment area. To augment the supply of donated foods acquired from Feeding America, food banks also typically establish relationships with regional and local food processors, retailers, distributors, and growers as well as conduct food drives. Food banks also secure funds through grants from Feeding America and other charitable organizations; monetary donations; and shared maintenance fees from their member agencies with which they purchase products to supplement donations and government foods and to improve their infrastructure.

The regional food banks warehouse the donated, purchased, and government-supplied foods and dispatch orders to their 46,000 local affiliated agencies that help provide groceries and hot meals to low-income families through 58,000 meal programs, such as food pantries and soup kitchens (Weinfeld et al., 2014). Local charitable food programs, often faith-based and staffed largely by volunteers, depend on food banks to help stock their inventories. On average, food banks supply 70 percent of the inventory of grocery programs and 45 percent of that for meal programs. The local agencies often supplement these supplies with donations from local grocers, bakeries, growers, food drives, and limited purchases (Weinfeld et al., 2014). In fiscal year 2013, 20 percent of the entire network's food was sourced from government programs, 66 percent was secured from donations, and 14 percent was purchased (Feeding America, 2013a). Annually, the network of food banks and their local affiliated agencies provide more than three billion pounds of food to low-income families (Feeding America, 2013c).

Although historically and at their roots, food banks were designed to alleviate sudden, unforeseen hunger by providing excess or rescued food to people in need, the evolving approach to food banking is much broader. Today, many food bankers approach their mission of ending hunger not only by providing the food but also by helping to provide low-income households with the opportunity to pursue physically, financially, and emotionally healthy lives. This more holistic approach has led to an increased focus on the quality of foods, in addition to their quantity, provided through the system. The foods distributed are intended to contribute to the good health of recipients. This is particularly important in light of data about and strategies designed to address the nation's obesity crisis and accompanying diabetes epidemic.

An approach to food banking that acknowledges and integrates nutrition into its core mission is not achieved overnight or without challenges. For example, some food banks are concerned that a preference for healthier foods will result in a loss of donations if donors, worried that future donations may be turned down, stop making donations of food (Campbell et

al., 2013; Handforth et al., 2013). This is a serious risk because, despite an observed decline in certain donated foods, company donations still contribute about two-thirds of food bank inventory (Feeding America, 2013a). Food banks concerned with nutrition must therefore assess the degree to which they can control or should seek to decline contributions from companies and corporations with which they have longstanding relationships. However, there are examples, such as the Food Bank of Central New York and the Alameda County Community Food Bank, which have successfully declined donations without offending or losing donor support (Campbell, et al., 2013; Handforth et al., 2013). These promising efforts suggest that donors are positioned to be partners in nutrition-focused food banking despite the hesitancy among many network members.

CHANGES TO MAINSTREAM FOOD SYSTEM ALTER DONATION STREAM

Historically, problematic goods from the food industry's main production and distribution channels, such as mislabeled products or damaged containers, accounted for a significant portion of the shelf-stable products donated to the food bank network. However, over the past 30 years, the food industry has become more efficient, leading to fewer mistakes and less waste in the main production and distribution channels. Advances in technology, coupled with the emergence of secondary markets that can sell such problem products at discount prices, have resulted in a significant decrease in such donations.

In response, food banks have sought new sources of food to compensate for this reduction in donations while simultaneously seeking to keep up with the growing demand from food-insecure clients at such food programs as pantries, soup kitchens, and shelters (Webb et al., 2012). Some food banks sought increased funding and began to purchase more items to supplement donations, while others sought new sources of donations, such as retail stores, and yet others obtained larger quantities of perishable food items from growers. For example, in the California Food Bank Association's Farm to Family program (California Association of Food Banks, 2013), food bankers have worked with California farmers to procure products that could not be sold in regular markets and/or were likely to be plowed under in the fields. However, the increase in perishable foods, from both retailers and growers, in the food bank inventory often required significant and potentially expensive changes in receiving, storage, and distribution practices, including more frequent deliveries and refrigerated storage and transportation (Webb et al., 2012).

A NUTRITIONAL CROSSROADS: OBESITY LINKED TO POVERTY

In the early 2000s, public health professionals began observing and documenting the epidemic of obesity in the United States and its potential impact on the health of millions of individuals as well as the health care economy. Although it affected all socioeconomic levels, excess weight was most prevalent among the lower-income population (Flegal et al., 2012; Ogden et al., 2012). During the emergence of the obesity epidemic, observers noted that many who were overweight were also undernourished and food insecure, a phenomenon that became known as the "hunger-obesity paradox" (Flegal et al., 2012; Gooding et al., 2012; Larson and Story, 2011; Pan et al., 2012). Hunger and obesity were seen to coexist, yet the causes and mechanisms for this association were poorly understood.

More recently, the dietary link between obesity and poverty has been more clearly elucidated. An evidence-based review of the dietary determinants of obesity commissioned by the Centers for Disease Control and Prevention identified specific foods and eating patterns associated with a higher body mass index (Woodward-Lopez et al., 2006). Evidence presented in the 2010 *Dietary Guidelines for Americans* confirmed particular foods and patterns of eating that were linked to obesity (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2010). Foods and beverages associated with obesity, such as fast foods and sugar-sweetened beverages, are economical sources of calories, and it is not surprising that low-income families seek inexpensive calories to feed themselves and their families (Drewnowski, 2007). Energy-rich, nutrient-poor dietary patterns lead to a higher risk of obesity and chronic disease (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2010). Thus it is crucial that organizations supplying foods to low-income families offer foods that have not been shown to contribute to obesity and chronic disease in order to promote and protect health while addressing the hunger needs of the population being served.

FOOD BANK EFFORTS TO IMPROVE THE NUTRITIONAL QUALITY OF INVENTORY

The increased demand for charitable food assistance by growing numbers of families and individuals, and increased concern about obesity and chronic diseases, particularly among the poor, have led to questions about the nutritional quality and calorie density of foods on the shelves of food banks. Although at the national level Feeding America has collected data on the quantities of various categories of foods distributed by their member food banks, details of the nutritional composition and quality have not been routinely documented. There is recent data on the nutritional properties of TEFAP foods, which represent a significant portion of foods distributed by food banks (Feeding America, 2013b). According to the USDA in 2012, TEFAP foods received a rating of 88.9 on the Healthy Eating Index, which is considerably higher than the score of 57.5 allocated to the typical American diet in 2005 (Zimmerman et al., 2012).

In the early 2000s, food banks began to assess their inventory systems to monitor food acquisition and create strategies to improve nutritional quality. For example, the New York State Department of Health's Hunger Prevention Nutrition Assistance Program, which in 1984 began providing funds to the state's food bank network to purchase, procure, and transport healthy foods, intentionally strengthened and expanded the food sourcing nutrition criteria. Early efforts to tackle nutrition were extended by staff at the Food Bank of Central New York, which developed and adopted a "No Soda and No Candy" policy (Campbell et al., 2009) and by staff at the Greater Pittsburgh Food Bank (Greater Pittsburgh Community Food Bank, 2013), which developed detailed nutrient standards and a nutrition rating system for donated foods received by the food bank. As local awareness of nutritional concerns increased, the growing momentum of regional food bank efforts has been supported by an increased focus on nutrition at the Feeding America national office, including the creation of the director of nutrition position and the convening of a nutrition task force and advisory group in 2011.

Feeding America recently developed and released the first version of its nutrition guidance for food banks, titled "Foods to Encourage," with the aim of helping food banks to identify and source healthful foods (Feeding America, 2013d). These recommendations are based on the *Dietary Guidelines for Americans* and MyPlate which advise increasing consumption of fruits and vegetables, whole grains, and including lean proteins, and low-fat

dairy foods into the diet (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2010) and describe the types of foods that charitable food agencies should aim to distribute. Feeding America continues to work on developing further guidance for food banks, as well as methods to monitor the nutritional quality of the foods distributed in aggregate through the network (Personal communication, M. B. Marshall, Director of Nutrition, Feeding America, November 17, 2013). A nationwide survey of local food bank managers found that most were supportive of a nutritional emphasis in food banking practices and indicated their intent to improve the nutritional quality of foods they distribute. In fact, 96 percent of the food banks reported having a medium-to-high commitment to improving the nutritional quality of foods they distribute (Campbell et al., 2013).

An important example of progress in improving the nutritional quality of charitable foods comes from California, where an analysis of the trends in the nutritional quality of food inventory of six California food banks over a recent four-year period showed a substantial increase in fresh fruits and vegetables procured and distributed, along with a decline in procurement of sugar-sweetened beverages and snack foods (Ross et al., 2013). In 2010, fruits and vegetables accounted for more than half, on average, of the total weight of foods and beverages at the six food banks (Ross et al., 2013).

However, despite the decline in donations of the less-healthy beverages and snacks at these California food banks, these foods remain a concern because they continue to contribute significant calories to the diets of charitable food clients. For example, the California food bank with the largest supply of donated sugar-sweetened beverages distributed more than 1 million pounds of these drinks in 2010 or the equivalent of 208 million (liquid sugar) calories. In the same year, the food bank with the largest quantities of donated savory snack foods (e.g., chips, crackers, and so forth) distributed 164,000 pounds or approximately 370 million calories from these nutritionally poor foods, a significant potential contribution to weight gain and obesity among charitable food clients (Ross et al., 2013).

Some critics of the strategy to limit donations of charitable foods of poor nutritional quality claim that the appropriate approach is to make any and all foods received by the food bank available to clients and to let clients choose their preferred items. It is noteworthy that in response to the question of what types of charitable foods clients actually prefer to receive, two studies were conducted recently. The studies documented that clients actually prefer to receive healthy foods, including fruits, vegetables, and lean proteins (which are also the most expensive foods). Less-healthy foods (e.g., soda, candy, and snack foods), which are an inexpensive source of calories, were ranked lowest by clients on the list of preferred foods (Webb et al., 2012; Campbell et al., 2011). In addition, *Hunger in America 2014* found that clients identify fresh fruit and vegetables as the most desired item not received (55.0 percent), followed by protein food items, such as meat (47.1 percent), and dairy products, such as milk, cheese, and yogurt (Weinfeld, 2014.) These results strengthen the argument that nutrition-focused food banking is supported and welcomed by charitable food system clients and therefore is client-focused food banking.

In 2010 Kaiser Permanente's Community Benefit program funded an effort by MAZON: A Jewish Response to Hunger and the University of California at Berkeley's Center for Weight and Health to support food banks in their intent to procure nutritious foods. Traditionally, MAZON has supported antihunger efforts; more recently, it has broadened its approach to seek to prevent obesity as well as food insecurity. The 2010 initiative demonstrated that the process of creating, adopting, and implementing a written nutrition procurement policy can effectively

change a food bank's organizational culture and practices. During the project, several food banks developed nutrition policies, and several others began the development of those policies. In response to increased interest and inquiries for assistance from food banks, in 2013 Kaiser funded a follow-up project for work with another cohort of food banks. At the same time, Kaiser provided support for much broader nutrition-related technical assistance and resources for food banks through the development of online modules to be provided free to all food banks and others who work with them. The course will be launched in early 2015. Further follow-up will lead us to know whether such assistance and early changes in culture and practice will translate into improved nutritional quality of food bank inventory (Webb et al., 2013).

Feeding America has provided leadership for its network members and clients in moving toward nutrition-focused food banking in several recent initiatives. In addition to its guidance with "Foods to Encourage," it has partnered with the National Dairy Council and the Academy of Nutrition and Dietetics to launch the healthy food bank hub (healthyfoodbankhub.org), a public website dedicated to linking the public health field to resources and information about food banks and ways for the public health community to support the emergency food network. Feeding America also supports linkages between the emergency food network and the public health field through its pilot diabetes initiative. This pilot connects food-insecure clients living with type 2 diabetes with appropriate food, nutrition, and health education and with medical care. Early results from the project suggest that food banks can be effective partners in enhancing health service utilization and diabetes care among food-insecure clients (Feeding America, 2013e). The model of food banks as key referral agents for federal feeding programs as well as for health care services is helping to develop a more inclusive mission relating to both food and health.

PLANNING FOR THE FUTURE

In February 2012, the California Food Policy Advocates group convened key stakeholders to review and discuss the findings from a series of studies funded by the Robert Wood Johnson Foundation's Healthy Eating Research grant. The studies investigated the nutritional quality of charitable food and policies and practices of food banks (Webb et al., 2012). Convening participants included Feeding America staff, food bank executive directors, food pantry coordinators, and industry and government representatives. Participants identified and discussed influences in the economic and political environments that challenge the food banking system, including increased client loads, sources of donations, tax policy structure, and the difficulty of obtaining new sources of food, particularly perishable dairy, meats, and fresh produce (Shimada et al., 2013).

Representatives from TEFAP who participated in the convening reported on the implementation of significant changes to improve the nutritional quality of TEFAP foods. For example, a recommendation was adopted to improve the amount of whole grains provided through TEFAP, and, subsequently, two whole-grain pastas and parboiled brown rice were added to the TEFAP available foods list (e-mail communication, Laura Walter, USDA TEFAP representative, August 2012).

Representatives from Feeding America presented their draft "Foods to Encourage" nutrition guidelines and described their contribution, when implemented, to promoting client health. On the basis of the discussion at the convening, representatives from the Atkins Center for Weight and Health at the University of California at Berkeley and from the California Food

Policy Advocates developed additional recommendations for the improvement of the nutritional quality of food bank inventory, including a call for development of specific food bank food procurement policies, incorporating the Feeding America guidelines (Webb et al., 2012; Shimada et al., 2013).

The studies and subsequent discussion at the convening stimulated specific positive changes in the nutritional quality of the food and beverages in the charitable food network, lent visibility and urgency to additional changes, and significantly enhanced the stakeholders' mutual understanding of each other's concerns about and progress in improving nutritional quality.

The Need to Reconvene Stakeholders for Further Discussion

Almost three years have passed since the February 2012 meeting, a period in which the resources and demands of the charitable food network have experienced swift change, and this argues in favor of a follow-up convening. During this period, significant developments have occurred in federal nutrition policy and the charitable food system, in addition to the launch of numerous initiatives in obesity and food insecurity prevention. Thus, it would be very useful to convene an inclusive group of stakeholders to assess recent changes, successes, and challenges and to frame new recommendations, with explicit goals and timetables, in order to continue strengthening public and private nutrition policy affecting the national charitable food system.

Participants might include the following:

- *Donors.* It would be beneficial to include a broad range of donors in the conversation, including those who have been willing to modify their donations to comply with new food procurement policies. In addition to manufacturers of food products and grocery distributors, other potential donors should be included in the discussion, including representatives of the dairy, ranching, produce, and processing sectors, to explore new methods for sourcing healthful foods that clients want but that are currently limited in the CFS distribution process.
- *Food bankers.* Representation of food banks from different regions across the country will be important in considering solutions to the differing challenges faced in sourcing particular types of foods.
- *Funders.* Funders of public health, health care, and obesity prevention, as well as funders from other sectors, such as education and employment, would provide an important contribution to the discussion and could identify opportunities to try out new ways to link charitable food with preventive health and wraparound programs and services.
- *Food bank agencies and clients.* Last, but not least, the important perspectives of the end users (clients) and end distributors (i.e., food pantries, soup kitchens, and so forth) would provide input on ways to keep actions grounded in the reality of capacity and needs.

Issues for Discussion

A lengthy report was issued to disseminate the findings of the studies and the recommendations developed at the 2012 convening (Webb et al., 2012). The report contains a compendium of recommendations to improve the nutritional quality of charitable food (pages 99–102), and these recommendations provide a good starting place for the convening participants' consideration. A short list of key recommendations follows.

Feeding America

1. Amend nutrition guidance to both encourage the distribution of healthful foods and reduce the distribution of less-healthful foods.
2. Assist local food banks to translate Feeding America nutrition guidance into effective local policies and practices that support clients' acquisition of foods that meet the dietary guidelines.
3. Continue to develop and disseminate practical methods for food banks to use in monitoring the nutrition quality of foods that are received and distributed.
4. Continue to seek new food donors that supply foods consistent with the "Foods to Encourage" framework.
5. Consult with financial donors to pilot financial incentives (e.g., compensation for cash or food donations lost by food banks due to modifications of food intakes to adoption and implementation of healthier nutritional standards.)

USDA

1. Foods and beverages available through USDA food distribution programs, including bonus items, should align with key recommendations from the *Dietary Guidelines for Americans* and client preferences where possible.

Food Banks

1. Establish and implement, through inclusive, consensus-building processes with key stakeholders, formal written policies addressing the nutritional quality of foods and beverages procured and distributed.
2. Classify and monitor inventory according to nutritional quality in order to effectively assess the healthfulness of the foods and beverages procured and distributed and the achievement of nutrition policy goals. Regularly analyze inventory data to track progress in procuring nutritious foods and to limit unhealthful foods.

Funders and Grant-Making Organizations

1. Provide financial support for food banks and their member agencies to increase the nutritional quality of food distributed to clients.

Advocates and Researchers

1. Explore the impact and feasibility of revising tax benefits associated with corporate donations, for example, limiting or eliminating tax deductions for donating foods of minimal nutritional value to agencies within the charitable food network.

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RELATED RESOURCES

Learn more about the efforts of Feeding America and a growing number of food banks that are innovating the way they obtain and distribute foods to improve the nutritional quality of their inventory. Watch the short video, “From Hunger to Health: How the Charitable food network can help,” at <https://www.youtube.com/watch?v=F6ERfMstky8>.

For resources and technical assistance to food bankers to engage stakeholders and develop sound food bank nutrition policies, a free online course is available through the Center for Weight and Health at UC Berkeley. The course is open to anyone, is free, and is offered several times during the year. Register at <https://www.canvas.net/browse/cwh/courses/food-bank-nutrition-policy>.

For more information about the course and related work of the Center and the Nutrition Policy Institute, visit their websites at <http://cwh.berkeley.edu/> and <http://npi.ucanr.edu/>.